COLMAN'S RURAL WORLD

Established 1848. ST. LOUIS, THURSDAY, APRIL 3, 1884. No. 14, Vol. XXXVII.

Sorgo Department.

National Sugar Growers' Association.

OFFICERS FOR 1884.

President—Norman J. Colman, St. Louis, Mo.
Vice Presidents—Capt. R. Blakely, Minnesota; D. F. Kenner, Louisiana; X. K. Stout, Kansas; A. Furnas, Indiana; C. F. Clarkson, Iowa; A. J. Decker, Wisconsin; A. G. Williams, New York; Dr. E. F. Newberry, Ill.
Secretary—F. K. Gillespie, Edwardsville, Ills. Treasurer—J. A. Field, St. Louis, Mo.

That Sorghum-Lapping Fiend.

ED. RURAL WORLD: The question has been asked "What has become of that sorghum-lapping fiend of Bavaria, Kas?" Epithets and missiles are not and should not be encumbered with ornaments. It would have been more euphonious to say Northern cane sirup tasting angel, but that would have been as insipid as corn sirup and would have dropped at the muzzle of the gun. This naked and bald-headed epithet traversed Illinois and Missouri and struck the target in Kansas. The epithet sorghum-lapping fiend is good, and its me. Colorado tramps begging through Kansas coined the epithet sorghum-lappers. They may some day become the dominant political party. Col. Colman is a sorghum lapper, Prof. Wiley is a sorghum lapper, and I am a sorghum-lapping fiend. I have been busily engaged in tracing the effects of sorghum diet on the body and the mind. It is conceded that diet modifies character and force. The rice-eaters have a character of their own. The savage, swift and tireless, derives his qualities from the game he had pursued before. The roast beef of old England and John Bull are cause and effect. Any person who will restrict his diet to beer, krout and limburger for a sufficient time, say two or three generations, will understand why the Dutch are Dutch. Any person can fill himself with potatoes and then soak the potatoes in Irish whiskey and will become for the time a Tipperary Irishman. Any person can swallow a few frogs and float the frogs in wine and can contribute to French literature. There are large frog-tracks in Jules Verne's writings, there are batrachians and amphibians in Hugo's writings. Sorghum is now influencing Kansas character and Kansas thought.

The general use of sorghum is recent, and it is rather soon to trace its effects on the body and the mind, but nowadays if one wishes to make original discoveries it is necessary to get up very early. It is true that the man who places a barrel of sorghum in his cellar influences the character of his children and of those yet unborn and the world will be a different world from what it would have been if he had never lived. As soon as completed, I hope to make a report on the "Results of Sorghum as Diet" which, I believe it is not vanity to say, will have as much value as the recent "Report of the Academy of Sciences on Sorghum." It would be a pleasure to dissect sorghum cadaver, and if I could find its brain, endeavor to determine whether its peculiar structure produced sorghum propensities, or whether sorghum tendencies caused its peculiar structure. I am not in the habit of waiting for opportunities to come to me and may manufacture a corpse for the purpose. It is said Indiana "stiffs" are much preferred by medical men. If the Commissioner of Agriculture would employ his experts in this way the country would get some good from the sorghum appropriations, but it is said he is interested in Mexican products and reciprocity, and consequently antagonizes sorghum. If this is true he will of course refuse, and the only thing for sorghum men to do is to buy the Department of Agriculture from the Government and run it themselves.

If another war should occur between the United States and Mexico it is not impossible the Commissioner of Agriculture and his flint lock might be found on the Mexican side, in that case the purchase would be unnecessary. Sorghum has already had a marked influence on Kansas babies, they are not the same babies they used to be in the early times. I am a bachelor and am aware that I should speak cautiously about trifles of which I really know but little. I once came very near not being a bachelor, but she was ambitious. I was poor and she married wealth. He is now a government clerk with expensive habits and inadequate salary, and I am a sorghum-lapping fiend. Such are the reversals Time brings, but there is a difference and distinction between sorghum children and human children. As the differences increase, they may result in a new race, having new virtues, new vices, new ideas and new forces. I think Mr. Deming will agree with me, and with this reinforcement I will face any opposition which I would dare to tackle alone. A Kansas senator said, in the Senate chamber, the Democratic party had the foot and mouth disease—when it opened its mouth it put its foot in it. This idea could not have originated with a ribbon cane senator. It could only originate with a sorghum senator of a State which makes sorghum enough to float such a senator and 60,000 Republican majority. This shows conclusively that sorghum originates ideas and influences thought. A. A. D.

Bavaria, Kans.

I have just finished swinging out a fine lot of nice light brown sugar on centrifugal made at the rate of 300 lbs. per day. My best melada made 6 1-2 pounds sugar per gallon. All who have seen it, pronounce it a grand success for Texas. My sugar was made from the Early Orange cane variety. Spring seems to be here; farming progressing rapidly. Fruit of all kinds all right yet. T. A.

Honey Grove, Texas, March 12th.

From Nebraska.

EDITOR RURAL WORLD: The article in RURAL of March 13th signed W. S., reflects my sentiments. I believe that the use of chemicals in the manufacture of sirup does more hurt than good. It is best made without them. I think the acid in it is what makes it more healthy than other sirups, and I find that in the new kinds of cane, we have but little acid, and if it is made right, it is good enough without the use of chemicals.

As to coal oil barrels, or any other hard wood, iron-hooped barrels, I find they do not give satisfaction because they leak.

TESTING SEEDS.

The best way to test seed is to count out a given number of grains and sprout them, by putting them in a dish, between two layers of cotton, and wetting some, keep near stove.

The best mill is the one that is stout enough to get out the juice. I think there is no principle of evaporation that excels the old reliable *Cook*, for the making of a light sirup, and we must make it light in color to sell it well. My advice is, get a good mill and evaporator, house the same, keep everything clean, work no bad cane, especially frozen, filter juice well, reduce juice inside of thirty minutes, skim thoroughly, strain sirup while hot, cool quick in small body, barrel after nearly cold, in soft wood barrels, cypress is the best; then if you don't have good sirup let me know.

L. F. G.

Hastings, Neb., March 15, 1884.

Cleaning Evaporators.

EDITOR RURAL WORLD: I would say to Mr. P. E., of Fairville, Mo., that I clean my copper evaporator with sulphuric acid. Wash the pan clean, then add enough of the acid to wet the pan well where the sediment of lime is deposited. Let it stand a few minutes, then heat with some dry straw, or bagasse, and while hot rub well with a stiff broom, then wash with water. If the first application don't clean it all off, apply the second time, until clean, and wash well, as the acid is poison, and avoid the fumes while burning. It can be obtained in any drug store.

Mr. H. F., of Kimball, Dakota—My portable and stationary furnace is composed of cast iron and boiler iron, with iron smoke-stack, front door and grates, stands on strong iron legs, 6 in number, with damper and partition in center to throw the fire away from the sirup. The fire-place is walled up with brick on the inside, back 4 1-2 feet, then the furnace is filled with clay from the back wall to the damper, up within three inches of the pan. Also a damper in the smoke-stack to regulate your fire. It has a strong draft stack, 18 feet high, 10-inch diameter. It is 14 1-2 feet long, and the pan is 12 feet long. I use a Cook Evaporator on it. They can be made any length or width desired. I have never had a chance to test its capacity, as my crusher is small and I run it with horse-power and can't get juice enough. I have boiled 80 gallons in a day. I. A. Hedges' Bagasse Burner can be attached as easy as to any other furnace. I would advise "New Beginner" to keep a scrap book, and read the RURAL WORLD, and cut out all that is worth saving. I have been a sirup boiler for 27 years, and expect to continue. I wish some one that understands the diffusion process would be so kind as to publish it in the RURAL. A large crop of Northern sugar cane is anticipated here the coming season.

JOHN WEBB.

Wayne Co., Ohio.

EDITOR RURAL WORLD: I send $1.50 to renew my subscription. I don't want to miss a number, as the Sorgo page has been interesting reading lately. Many thanks to Brother Anderson and others.

With your permission I would like to give a hint about planting that may be of service to very many:

There are many who are not prepared to buy special machinery for this purpose. I hire a Brown or a Barlow Rotary Planter, prefer the latter because I can see the seed. I then take out the seed plates and fill them in the following manner: Whittle out as many pegs as there are holes in a plate, make the pegs about an inch long, and about as large round as I want the seed hole, say 1-4 of an inch, according to amount of seed you wish to drop in a hill. Make the pegs a little tapering. Now make some little spot of ground smooth and firm, and lay a seed plate down wrong side up. Set a peg in the center of each hole. Have a ladle with melted metal. I use solder and lead or babbit metal and lead mixed; pour in the metal around each peg until filled a very little more than full. I then take the plate to some convenient iron, the square end of a harrow tooth will answer nicely, and with a riveting hammer, fit the filling snugly around the edges. If necessary, smooth off with a knife or file. If the holes are too small, and I prefer to make them a little smaller than they will finally be, dress out with a penknife blade. Be sure that the holes are a little larger on the bottom side of plate. I have done this the past two seasons, and have had the finest stand of cane I ever had.

When I cultivate the first time, I have a boy follow with a steel-tooth rake. A smart boy will keep up.

I don't wish to be a bird of ill omen, but I certainly think that if this season is unfavorable for sorghum, many a sorghumite will curse his luck, and mills will be as they were a few years back, worth their weight in old iron. Just think of *Kansas alone*, credited in 1883 with 4 1-2 gallons for every man, woman and child in the State, and a prospect of that being doubled in 1884.

I think the motto should be *quality* not *quantity*. H. V. N.

Tonganoxie, Kansas.

Sorghum Sugar—Profits of Raising Cane, Etc.

In reply to a letter from Smith, Gifford & Co., of Nashville, Tenn., Geo. W. Gere, Esq., Pres. of the Champaign Sugar Works, said:

"Your favor of the 7th inst. is at hand. The amount of sirup which you may expect will be produced from a ton of cane by the Weber & Scovell process depends of course on the per cent. of the extraction and quality of the juice.

From all that I have heard of your climate, soil and analysis of cane, I am decidedly of the opinion that one year with another, for a term of ten or more years, you may safely calculate that at the proper period of maturity for sugar making the juice will show by analysis at least 10 1-2 per cent. of cane sugar and 2 1-3 per cent of other sugars, and not to exceed 1 1-2 per cent. of solids not sugar. By the two mill system and hot water bath between the mills, we, with ordinary good work, succeed in obtaining at least 60 per cent. of the weight of net cane in juice. By net cane I mean stripped and topped cane.

With juice of that quality and 60 per cent. of extraction, you can rely upon a product of from seventy to seventy-five pounds of sugar and from seven to seven and a half gallons of sirup per ton, both being marketable articles, ready and fit for retail trade.

It might be well to mention in this connection that by no other process, except the Weber & Scovell process, is a marketable article of sugar made from sorghum cane.

Yes, I have taken considerable trouble to ascertain the effect of the sorghum crop on the soil. The letters and statements are now in the hands of J. A. Field, of St. Louis, Treasurer of the National Cane-growers' Association; but I can give you concisely the substance of the information received upon that subject.

I have reports from persons who have grown from two to seven successive crops of sorghum cane on the same tract of ground without the use of fertilizers or manures, and their universal testimony is, that it is the easiest and least injurious crop on the soil that they have ever raised. That it leaves the soil in better condition for other crops than any other crop they have ever raised.

Do these statements conflict at all with the theory upon the same subject as deduced from the analysis of the cane? I think not. Take net cane and substantially 90 per cent thereof is sugar and water, the sugars of different kinds all come from the atmosphere and do not in the slightest degree come from the soil. Certainly no one would think that the water in the cane and juice exhausts the soil. Therefore, of the net cane only 10 per cent. of the weight thereof comes from or draws upon the soil.

From these two sources of information, together with our own experience, there is no doubt, in my mind, that the sorghum crop draws, as little upon the soil as any crop that can be grown.

At a distance of an average of two miles from the factory there is no doubt, in my mind, that cane at $2 per ton, delivered, is a more profitable crop to farmers than corn. And for the factory work with cane of the average quality, as above stated, with ordinary prudence in the management, with a plant that will work 200 tons each twenty-four hours, the profits per ton should be from $2.50 to $2.75 per ton, counting the selling price of the sugar and sirup at the lowest price conceivable."

Sorghum Culture in Franklin, Tenn.

As an indication of the interest developed in sorghum culture, a charter has been granted to E. G. Bennett, Y. M. Rizer, T. J. Turley, W. W. Smith, and R. E. Haynes, all of Franklin. Under the name of the "Franklin Sugar and Sirup Mills," they will begin the manufacture of sorghum products as soon as arrangements can be completed, which will be in a short time. The building and machinery will require the outlay of $30,000, and the capacity of the mill will use the product of nearly 1,000 acres. Three auxiliary sirup mills are in contemplation. The officers of the new company are: Y. M. Rizer, president; J. B. Lillie, vice president; T. J. Turley, secretary, treasurer and general manager.

Diffusion Process and Sorghum.

—In extracting sugar from beet the diffusion process is employed. The beets are cut in small slices and then placed in a steam-tight tank, and the sugar extracted by steam and hot water. The water is used over and over until it becomes highly charged with sugar, and by this process it is claimed that more sugar is extracted than can be secured by pressing the pulp. It is proposed to use this process in the manufacture of the sorghum sugar. It is stated that even when a mill expresses from 50 to 60 per cent. of juice from the cane, it may yet leave more than one-half of the sugar in the bagasse. This loss is explained by assuming that a considerable portion of sugar is stored in the cane in a solid state, either as pure crystalized sugar or in some combination easily decomposed or dissolved in water. It is claimed that the microscope has shown crystals of sugar in the cells of the sorghum; if this is true it cannot be extracted by mere pressure, but it can be recovered by the diffusion process, as thirteen pounds of crystalized sugar and six pounds of good sirup have been made from one hundred pounds of cane by this means.

From 25 to 35 per cent. more sugar is claimed to be secured by diffusion over the crushed cane system now in use, but whether the process is equally as profitable remains to be shown. We have seen it stated that the gums in the juice are not extracted by diffusion, but this is a great mistake, for it was proved twenty years ago that the gums were more soluble than the sugar. On the contrary, we expect that getting rid of the gummy matters will be the chief drawback to the economical extraction of sugar by diffusion.—*National Tribune.*

Sorgo Notes.

—The London *Economist* draws attention to the decline in the price of sugar, which is now 1s 6d per cwt lower than last year at this time, notwithstanding the fact that the crops both in the East and West Indies are under the average. It finds the explanation in the exceptionally large yield of beet sugar on the continent and the great pressure to sell in Germany. There has been a progressive increase in the beet crop since 1879-80, when it produced 1,453,929 tons of sugar. The yield of 1882-83 was 1,146,534 tons, and the estimate for 1883-4 is 2,240,000 tons.

—SORGHUM CULTURE ABROAD.—The Hon. S. H. Kenney, of Morristown, Minn., one day last month shipped 40,000 pounds (about 700 bushels) of Early Amber cane seed to Russia, where it had been purchased for spring planting in the province of Kriew. Efforts are also making to introduce sorghum culture in Turkistan, Asiatic Russia. And the *Tropical Agriculturist*, published at Columbo, Ceylon, devotes space to the sorghum sugar industry of this country, and discusses the question of its profitable introduction into the tropics. Thus it appears that sorghum is making its way into other countries, and bids fair to become a valuable addition to the world's rural products.

—The amount of foreign molasses consumed in the United States during the year 1883 was 29,436,310 gallons, and of New Orleans molasses 18,966,755, making a total of 48,403,065 gallons of pure cane molasses, against 49,160,748 gallons in 1882, a decrease of 757,683 gallons. The average price of prime to choice New Orleans molasses in New York in 1883 was 53 7-8c per gallon, against 66 1-2c in 1882, and 52c in 1881. Of Porto Rica molasses the average price was 34.58c in 1883, 48 1-2c in 1882, and 43 3-4c in 1881. The manufacture of glucose or corn sirup is an industry quite separate and distinct from the molasses trade, and yet the article is largely used, both as a substitute and adulterant for cane molasses. It is difficult to estimate the quantity produced, as manufacturers are unwilling to supply the necessary data, but some idea of the importance of the industry may be gathered from the fact that the value of the annual product is estimated at $10,000,000.

—Of late sugar has been cheaper than ever before, and present prices are remarkable low, although Chicago wholesale grocers have put figures up a fraction of a cent within the past week. There is now some prospect of a check to the sugar production of Germany. It is calculated, at the present rate of tax and drawback, the loss to the German treasury upon exports of raw and refined, is £1,750,900 a year, or over $8,500,000. It is now proposed to increase the tax and reduce the drawback to an extent that would bring the bounty upon exports paid by the treasury down to about £500,000, or $2,500,000 per annum.

This would increase the cost to the foreign buyer by about 1-2c per lb. and would put an end to the unhealthy stimulus under which the German sugar production has been growing during the past eight years, in which their crop has risen from 300,000 tons to 925,000 tons. The abnormally low prices of sugar all over the world can be directly traced to the pressure to sell this great mass of sugar in Germany.

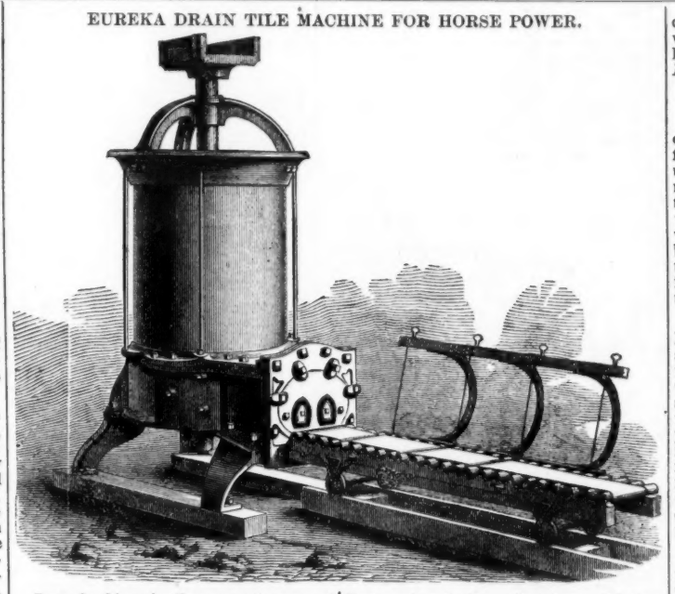
Agricultural.

Preparing Ground and Putting in Oats.

EDITOR RURAL WORLD: As the season for putting in the oat crop is about here, I thought that perhaps a few thoughts gathered from fifteen years of practical experience in regard to this important crop might be of some interest to new beginners on the farm. My father, being a farmer, and now living on a well improved farm in Central Illinois, I have had a chance to observe a few things: That a rotation of crops is essential to successful farming; that an early sown or planted crop stands the best chance to be a paying one; that ground intended for oats should be plowed in the fall, and soon as the ground is dry enough, sow your oats, (two bushels and a half to the acre is the nearest the correct out here in Central Illinois,) and thoroughly harrow the ground, covering all the grain; this leaves a fine seed bed; the oats come forward faster, make heavier and better oats, stand up better and are less liable to rust. *Never* plow oats under with a plow two or three inches deep, as it makes the crop late, and they never yield as well. Where you have not plowed the ground in the fall and want to put the oats on corn ground, first take the stalks off, then sow the oats, and take the harrow, and thoroughly pulverize the ground. The idea is to get them in shallow, with fine surface. R. B. H.

Seed corn may be made safe from wire-worms and other vermin by soaking it before planting in a mixture consisting of one pound of blue vitrol or sulphate of copper in a gallon of water. The solution should be lukewarm and the seed may soak a day or a day and a half. The poison will not only kill worms but it will also destroy any injurious fungus germs that may be on the grains. Care should be taken not to get any of the solution on the hands, as it make sores—*Orange Co. Farmer.*

EUREKA DRAIN TILE MACHINE FOR HORSE POWER.



In embarking in the manufacture of Drain Tile, the first consideration is to procure good clay. No machine can produce good tile out of poor material. Therefore, a little time spent in the selection of clay will be amply repaid by subsequent saving in tile that might otherwise be lost. All efforts to use gravelly clay by screening it in the machine have heretofore proven to be but an annoyance and loss, and if clay free from gravel cannot be found, we advise the use of crushing rollers as being the only practical method of disposing of them; besides, the use of a crusher will repay the outlay in reducing the clods and putting the clay in condition for tempering. Having secured good clay, the next important matter is to select a machine, which leads to the question as to what constitutes a good tile machine. A good machine should be capable of making tile in paying quantities—tile that are well formed and straight; tile that will dry and burn without undue loss; tile that can be sold to men who know what tile should be. Poor tile can not be sold in competition with good ones and yield a profit, because it costs more to make poor ones than it does good ones. A machine for making tile should be simple in its construction in order to be durable, and to be durable it must be strong, well-made, convenient of access to its working parts, have easy and ready means of taking up all leakage caused by wear, and have sufficient capacity to make tile in paying quantities with the least expenditure of money, labor and power consistent with first-class work. The original cost of machinery is of small importance compared with its durability and the cost of repairs can only be computed by adding the loss caused by delay during a busy season, which may be so excessive as to consume the profit, or sufficient to have paid the difference in cost between a cheaply-constructed and a strong, well made machine. The capacity of a machine should be adapted to the wants of a neighborhood; that is to say, if a single-delivery machine, with its lesser first cost and the advantage of being worked with one hand less than a double-ended machine, will supply all the tile that can be sold in a neighborhood, it certainly would be an injudicious investment to buy a double-ended machine costing more money to start with, and increasing the running expenses by the employment of one or more additional men and an additional amount of power to drive it. And, on the contrary, if the demand for tile is unlimited, it would be unbusiness-like to undertake to supply that demand with machinery entirely inadequate for the business. And it would be the height of foolishness to buy a mill simply because it had two places for the tile to issue from, if it required three men to work it and produced no more tile than a single-delivery mill, which required but two men to work it. And yet such mills find purchasers. Our experience in manufacturing tile machinery dates back about sixteen years. This experience has brought us in contact with practical tile-makers, and has been favorable to the development and perfection of useful devices and machinery for that purpose, to which we call attention in this circular, and the machines described on succeeding pages will be found to not only be of the best construction, material and workmanship, but to fill the various requirements in capacity, durability, etc., of first-class machines.

The Eureka Tile Machine of which the above is an illustration, is a radical departure in plan of construction and operation from any heretofore made, and in our opinion has decided advantages over any other machine. It is equally well adapted to steam and horse power, the difference being only in the attachment of gearing and the application of power. The purchaser of a horse power-machine can therefore at any time have steam-gearing attached, and thus increase the capacity without having to purchase an entire new machine. For further particulars send for descriptive circulars to Chandler & Taylor, Indianapolis, Ind.

Small Farms—The Growing Hope.

—It is gratifying to know that farms in this country, while increasing in number, are diminishing in size. This is the tendency in all parts of the land. Old plantations of the South are cut up into several farms, rented usually, but sometimes bought by the freedmen who formerly cultured them under compulsion. The division of large tracts is rapid on the Pacific Coast. Bought for speculation, in areas so large that fears of landlordism were excited in many quarters, and cultivated in part to realize taxes and interest while holding, they are kept only until sufficiently advertised to make a market at a long advance. The broad prairies of the Upper Wisconsin and Red River of the North are tempting inducements to capital. The bonanza farms serve well to lure new settlers, to swell prices, and by-and-by to fill the pockets of their owners by the sale, not of their wheat, but of their acres. Big farms are not always profitable in this country—perhaps not often profitable.

There is another sort of farms, the great cattle and sheep ranches, that threaten a worse monopoly than the great wheat farms. Without owning more than a few acres on some water-course, some ranches fence in thousands of acres of public land, excluding the pioneer with a small herd or flock. It is becoming a general practice, and individuals are combining in companies, with bona-fide capital amounting to one, two and sometimes three million dollars. The controlling interest of many of these companies is held by foreigners, absentees who live in England and Scotland, and draw their income from America as from Ireland. The Secretary of the Interior has sounded the note of warfare upon the plunder and monopoly of the domain. The illegal fences should "go."

Do farmers realize the full meaning of the small-farm plan? It means schools, churches, society, culture in all directions. Monster farms mean a desert, isolation, barbarism. Small farms encourage good tillage, make large crops, high prices of land and property for all. Instead of four million farms in less than a generation eight will be required. Available public lands are becoming scarce. When farms are no longer given away, and land-owners must divide, they will sell only at a strong advance on nominal rates. It is a good time for the poor man to secure a foothold upon a covenient bit of soil, become a land speculator in a commendable way, and make a home for himself and his children before the competition for land shall crowd him to the wall of homelessness.

Plant Shallow.

—I promised to call attention to Mr. Boekenogin's experience with regard to planting seeds. He is quite certain if corn is planted the "proper depth," near all that is judged good will come up. Last spring, to test his theory, he planted the same seed at same time at different depths and noted the result. That which was planted on or near the top of the ground and covered slightly, almost every grain came up, while that put in deep as the planter deposits nearly all rotted. Since I was at Mr. B's last fall I have talked with several farmers on the subject and every one of them, though they have not experimented, believe that theory a correct one. I observed last spring also that Mr. C. C. Hardin, a thinking farmer of this community, planted almost his entire crop the old way and covered it with the hoe. I asked him why he did not use the planter. He replied, "the planter will not do these wet cold springs. I have been watching. The planter puts the corn too deep. While the ground is cold and is drenched every few days with rain the seed must be near enough the surface to feel all the sunshine we get or it will surely die." I asked if his early planting came up satisfactorily. All right, almost every hill of it, but if same seed had been planted at the same time to line with the planter, it would have been a failure. Mr. Boekenogin has also learned a fact about planting potatoes we have never heard or read before. He professes to have ascertained to a certainty that if potatoes are planted precisely four inches deep, they will give the greatest possible yield, and says the crop will decrease, comparatively, as they are planted above or below this depth. Few farmers have taken the pains to measure, plant seeds and note the outcome, but all seem to understand that much is learned in every department of life by experiment; and all ought to understand that it will not do for the tiller of the soil to linger longer in ignorance of the demands around him. He must brighten his wits, or the varied changes in the season, the bug tribe, and wear of the soil will garmandize his labor.—*Mrs. Mary E. Donley, in Iowa Register.*

Agricultural Notes.

A great many bones are wasted on every farm, which would make valuable fertilizing material, easily prepared for use. Procure an old pork or whisky barrel, and as bones accumulate, throw them in and cover them with unleached wood ashes. If the barrel stands in the weather, in a few months the bones will become friable, and easily converted into the best bone dust. If a quicker process is required, burn the bones and crush them.

—In buying fertilizers, says the New England *Homestead*, see that they are in a thoroughly fine and pulverent condition. This is especially important with "bone" manures, in which the main source of phosphate acid is frequently in the form of ground South Carolina phosphate rock. The phosphoric acid in this form is quite as available as in the form of bone, provided the rock has been finely ground and thoroughly treated with acid. Most manufacturers appreciate the importance of this point, and make their goods as fine as possible.

—Though corn should not be planted until the ground is warm, there is an advantage in early plowing, partly to give opportunity for warming the seed bed. Some of the very best crops have been grown on Fall-plowed land, with the manure spread on the surface during winter. The need for warmth in the seed bed makes a freshly turned furrow unsuitable for planting corn, though it is all the better for oats or barley. But, if corn ground is plowed early, cultivation, to mellow the seed bed, should be continued until planting time.

The *Boston Advertiser* calls this the wire age. Sleeping, we repose on wire mattresses; eating, we take food sifted through wire sieves; calling, we pull wires; traveling, we go by cable or electric railways over wire bridges, and are hoisted by elevators hung on wires; we send messages over telegraph or telephone wires, and are lighted on our way by electric light wires; from car windows we see miles of wire fences; our clocks are set by wires, our watches run by wires, our books are stitched with wires, our pictures hung by wires, and our [illegible] tics managed by wires.

—The opening, by railroad, of Mexico to our country makes more interest in her capacity. The wheat-growing area of Mexico, *par excellence*, extends from, say, from Pueblo nearly to Colima, about five hundred miles east and west, and from Southern Mioachan to Zacatacas, about 400 miles north and south. This tableau is broken by mountain ranges into a number of rich districs especially adapted for the growing of wheat, namely, the Lerma Valley, roughly 200 by 16 miles; the Bajio (Northern Michoacan, Jalisco and Southern Guanajuato) 200 by 200 miles; Aguascalentes, 50 by 50 miles; the San Luis Potosi and Querantero district, 150 by 30 miles. Total, say 52,000 square miles. Of this immense field of rich and arable land one-third, it is believed, could be readily put into wheat with due regard to the other agricultural interests of the country.

—Experiments made by a few members of the Elmira Farmers' Club in the last three years seem to justify the conclusion that sowing many varieties of grass seeds is the best way to secure even and full setting of grasses. A single trial made by President McCann with six varieties in the autumn of 1882, he pronounces the most satisfactory seeding in all his extended experience covering a long term of years. He found every foot of the ground completely occupied in the autumn of 1883 and all the grasses then standing went into the winter in fine condition. There is nothing new in this doctrine of seeding except as more varieties are embraced than in ordinary practice. Explanation of success may be found partly in the fact that soil unfitted for one kind may nourish and support another; thus when a mixture embracing many varieties is sown one or another will be reasonably sure to catch, and in this way the entire surface will be occupied. The mixtures sown by the members of the Club have been obtained from Mr. Daniel Batchelor, of Utica, who is an authority on grasses. He has studied their growth, their habits, their distinguishing traits, and as a consequence has acquired a degree of skill in mixing seeds not obtained by those whose sole interest is in selling. Of course the varieties may be found elsewhere and mixed to suit. The main point is to get so many kinds of seeds upon the soil that some one or more will take root and make that thick setting which is essential to permanent sod. All observing farmers recognize the fact that grass is the foundation of successful agriculture. Then the first requirement is to obtain success with grasses. This done the land becomes profitable for other uses because it is supplied with vegetable matter whenever the sod is turned under. Good sod is good manure, and in no other way can good manure in full supply be obtained so cheaply. This is a subject which should interest every farmer, and the time of year is favorable now for giving it full consideration. Timothy and clover, the common mixture, does not meet all the requirements whatever they may have done in the past. Under the system of cultivation employed by northern farmers the tendency is to deprivation of vegetable matter in the soil, but with thick and full seeding an immense amount of roots can be secured in the soil with a good catch of the seeds, and the good catch in turn is secured by an extended mixture of varieties.

The Shepherd.

Missouri Wool Growers' Association.

OFFICERS FOR 1883-4.

President, J. M. Sneed, Sedalia, Mo.; Vice President, Samuel Jewett, Independence, Mo.; Secretary, H. V. Pugsley, Plattsburg Mo.; Treasurer, N. H. Gentry, Sedalia, Mo.

St. Louis as a Wool Market.

Accurate official statistics show that upwards of eighteen million pounds of wool arrived in St. Louis by river and rail during the season of 1883.

This amount of wool would make 900 car loads of 20,000 pounds to the car.

It has been assumed that Boston and Philadelphia were the only two large wool markets of the country—and it may perhaps be admitted that there was a time when such was the fact. But the Western and Southwestern wool growers have for some years been finding out that quick cash sales, smaller freight charges, and smaller handling charges, "panned out" better net returns than the Eastern cities gave with their nominally a little higher prices, but with the drawback of 60 to 90 day sales and their long list of charges including commissions, ranging from six per cent. to two cents per pound. At the same time manufacturers have been finding out that all grades of wool could be bought in St. Louis at all seasons of the year, until the many prosperous woolen mills of nearly all of the Middle States and many of the New England mills, will buy largely from this market.

As an example of this, two million pounds of Missouri combing wool was sent direct from St. Louis to Manchester, N. H., in 1883.

The RURAL WORLD of December 20th and December 27th, 1883, published the experiences of some of the most intelligent and enterprising Missouri wool growers, which were eminently favorable to St. Louis, in comparison with Boston or any Eastern market.

We notice in this connection, that A. J. Child, of 209 Market street, has republished the above named letters in his *Wool Circular* for 1884, and we presume he would cheerfully mail his circular to any applicant who may have ovlerooked or forgotten the testimouy given in those letters.

We also have the experience of one St. Louis dealer, who made an experimental shipment of wool to Boston, and being dissatisfied with the price there, had it shipped back to St. Louis, *and made a profit* over the Boston price by doing so!

The Wool Product.

GOV. COLMAN: I notice in the RURAL WORLD of the 6th inst., an article from Judge Lawrence of the Treasury Department, giving number of sheep and wool grown in 1880 in the United States, which is very misleading. He is correct in number of sheep, but in pounds far from the mark. He gives as amount of wool produced from 43,000,000 sheep at 475,000,000, being an average of eleven pounds per head, which is over double the average per fleece; the average per fleece is under rather than over 4 1-2 pounds per. Judge Lawrence's average per fleece for California is under 3 pounds per fleece, while New Mexico and Texas averages at his estimate, is under 2 pounds per fleece.

Such statistics are misleading, and therefore I send you the United States census report for 1880:

Number of sheep in the States and Territories	42,381,389
Wool produced by them	155,681,757 lbs.
ADD TO QUANTITY BY DEALERS.	
[illegible] and California fall clip	13,000,000 lbs.
[illegible] of other ranch sheep	34,000,000 "
Pulled wool and fleeces of slaughtered sheep	38,000,000 "
Grand total wool product	240,681,751 lbs.

I believe the above figures of 85,000,000 for fall clip, pulled wool and slaughtered sheep, is largely over estimated. Mr. Jas. Lynch, wool broker of New York, whose statistics are relied on as being as nearly correct, estimates the wool clip of the United States for 1880, at 232,500,000 pounds, and importation of foreign wool for 1879 at 64,903,018 pounds.

I would send you the number of sheep in each State and Territory, and wool produced by each, but fear it would take too much space in your valuable paper.

The number of sheep in Australia official report in 1881, was 74,437,266. The Australian wools come in competition with American fine, or clothing wools, and are produced at about the cost of herding and shearing, and the freights are little more from Australia to Boston or New York, than from Missouri. Consequently, we cannot grow wool profitably at present prices, on land worth $50 to $100 per acre, or we cannot compete with Australia and other foreign wool profitably, unless higher protective duties than the present. Yours truly,

R. F. B.

Columbus, Ohio.

Sheep Notes.

—Sheep are excellent utilizers of food. Of the dry food consumed, Sir J. B. Lawes found that sheep stored up in increased weight twelve per cent, while cattle only laid up in increased weight eight per cent, or in other words, 8 1-2 pounds of dry food increased the live weight of sheep as much as 12 1-2 pounds the live weight of cattle.

—Sheep are one of the best kinds of stock to keep in orchards. After a little practice they will pick up fallen fruit quicker than hogs, and this is often very important, as the codling moth worm generally leaves the apple soon after it drops. But, with either sheep or hogs, sufficient food must be supplied or the trees will be barked. The food thus given goes, however, where it will do the most good in the production of the largest and fairest fruit.

The following bit of illustration, from the *Textile Record*, is full of point: One of the most frequently repeated allegations of the free traders is that the duty is always added to the price of an imported article, and to the price of the American article that comes into rivalry with the foreign made article; and there is no more common charge than that the poor man who buys a blanket has always to pay the worth of the blanket plus the duty. Recently, a curious inquirer after truth in this country, imported a pair of five-pound blankets from England. The cost, in England, was $4.45. The duties and custom-house fees were $4.90, thus making the total cost of the blankets when landed here $9.35. Precisely the same quality of blankets, of American manufacture, can be bought any day for $5.20 a pair. This is 75 cents more than the original cost of the English blankets; but it is evident that, in considering the matter, we must regard the following facts: First. If there were no American blanket-makers, the price of English blankets would certainly be higher than it is in the presence of the American competition. Second. The business of making American blankets gives employment, not alone to spinners and weavers, but to makers of machinery, to coal miners, to iron workers, and to persons engaged in other industries. Because men have such employment they are able to buy blankets. Without it blankets might be much cheaper and yet be beyond the reach of multitudes of men and women.—*Orange County Farm.*

Mr. Harpster of the Ohio Wool-growers' association is preparing an argument in favor of the restoration of duty on wool to the old rates. He will probably appear before the ways and means committee, the day set apart for hearing the wool men. Judge Lawrence of the treasury department has been collecting some figures for Mr. Harpster's use. California leads all with nearly 9,000,000 sheep and an annual yield of 17,000,000 pounds of wool. Ohio comes second with 5,000,000 sheep, but exceeds all in wool production, aggregating over 25,000,000 pounds annually. Indiana with a million and a half sheep, raises 6,000,000 pounds, while Kentucky, with over 1,000,000 sheep, produces 5,000,000 pounds. Rhode Island and Delaware have the lowest figures—the former 17,211 sheep and 65,000 pounds of wool, the latter a few thousand more of each. Massachusetts has about 75,000 sheep and produces but 300,000 pounds of wool, while Maine, Georgia, Iowa, Kansas, North Carolina, Tennessee, Utah, Vermont, Virginia, West Virginia and Wyoming territory possess in the neighborhood of 500,000 sheep each. The states and territories owning a million sheep and over are Colorado, Illinois, Missouri, New York, Oregon, Pennsylvania and Wisconsin. Michigan has about 2,500,000 sheep with a wool clip of 12,000,000 pounds; but this is exceeded by New Mexico and Texas, which have nearly 4,000,000 each, with a production for the first named of 4,500,000 pounds and for the latter of 7,000,000 pounds. The total wool product of the United States in round numbers is estimated at about 175,000,000 pounds.

In view of the above showing some of the Democratic members from the other large wool-growing states think that the Ohio men are assuming a little too much prominence in their effort to represent the wool-growing districts of the country. This latest Ohio idea is received with comparatively little favor in either branch of congress and the effort of its advocates to show the extent of the wool production of the country only serves to bring out all the more plainly the weakness of their cause.

The Pig Pen.

—Exports of hog products have almost entirely ceased, owing to the rise of prices in our local markets and to the reduction in stock at Chicago, there being in pork 27,267 barrels less, in lard 8,508,000 pounds less, in bacon 2,590,000 less, and in shoulders and other meats 2,000,000 pounds less than during the corresponding month last year. Continental markets are well supplied with lard, however, as there are in stock at the five principal ports 45,500 tierces, as against 29,000 tierces same period last year.

BREEDING SOWS.—In some timely hints for this month the *American Cultivator* says swine need dry pens well littered, at all times, but at this season of the year it is of the greatest importance. The breeding sows should be separated from the others long enough before farrowing time to get well used to their pens and to being without companionship. They should be kept as quiet as possible after the change, and should be accustomed to the presence of their keeper, and to being handled by him, as his services may be nedeed when the little pigs come.

PIG PRESCRIPTION.—Under this heading Col. F. D. Curtis writes to the *Tribune*: "Farmers would be surprised to see how much salt pigs will consume if allowed all they will eat. I have come to the conclusion that it is essential for their health as for that of any other domestic animal, if not more so. I have seen two of my pigs in a pen eat a small handful of salt. It should not be mixed in the food lest too much be given—but be put in the pen either in a clean dry spot or in a box where they can help themselves as instinct or appetite may direct. Two other things pigs crave, sulphur and charcoal. I buy dirty salt very cheap, which is just as good for pigs and also for cattle, and keep a barrelful in the pig house all the time. I buy crude sulphur by the barrel. Charcoal is easily made by burning green wood in the stove and raking out the coals. The cinders from coal are also good for pigs and they will pick out the smallest bits. They seem to have an instinct to know that the little potash (alkali) they contain is good to correct acidity of stomachs and to check fermentation. Charcoal does the same thing more effectually. The sulphur acts as a corrective in the stomach, purifies the blood, and heals and prevents skin disorders.

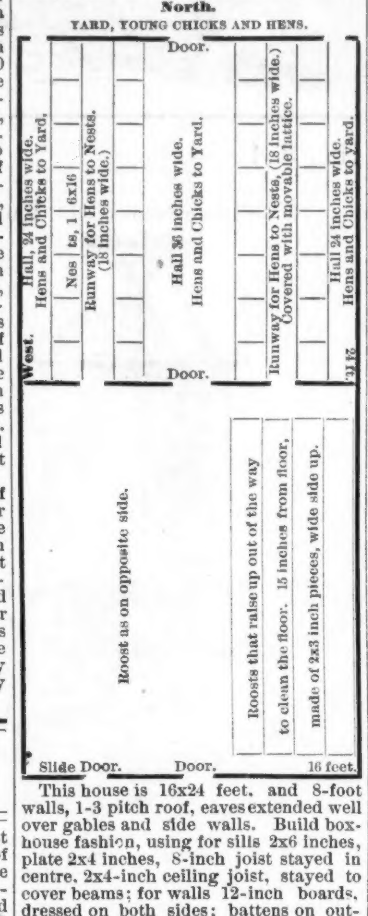
WINTER FEEDING OF PIGS.—Discussing this subject the *Live Stock Journal* remarks that the practice among dairymen of wintering shoats to consume the waste products of the dairy during the following summer is seldom a paying operation, as pigs do not often grow much in cold weather. In fact they are generally kept through the winter without any increase in weight. To keep a lot of swine four or five months for nothing, is effectually to wipe out all the profits of growth in the following summer, so that the feeder turns his summer feed to little or no account. The shoat that lives half the year without gaining or losing in weight, suffers a decided loss in value. As the life of a hog advances, his ability to appropriate food advantageously diminishes. The rule is very uniform, that old hogs do not utilize food as well as young ones. To keep shoats, therefore, for a half-year or so, without growing, is to advance them to an age that diminishes their value. It is by no means impossible to winter shoats profitably. If well fed, and kept in comfortable quarters, they will gain more than enough to pay for their keeping. The trouble lies in their not being taken proper care of. Swine will endure intense cold without freezing, and because they can do so and live, they are left to "rough it." It costs more to keep any stock in cold than in comfort. Swine are no exception to the rule. They, as well as other animals require food to generate heat from, and the colder they are kept the more they require; though the exposure to which they are often subjected in the winter might lead one to suspect that many people do not think so. Loss thus accruing from needless cost in feed, and from the advanced age of the animals, it is cheaper to begin with, and more profitable in the end, to keep brood sows that will drop their young early, than to endure the expense of supporting a lot of depreciating animals.

The Poultry Yard.

A Hen House.

Will R. King, of Peabody, Marshall, Mo., takes a pride in every department of farm life, and aims to make his practice therein as near perfection as possible. A year ago we described his poultry house and found it an acceptable item to poultry fanciers and breeders. Recently we wrote, asking had he matured an improvement on the old house, and if so, to be kind enough to send it us.

This he has very kindly done, and our readers have herewith the benefit of both his judgment and his experience.



This house is 16x24 feet, and 8-foot walls, 1-3 pitch roof, eaves extended well over gables and side walls. Build box-house fashion, using for sills 2x6 inches, plate 2x4 inches, 8-inch joist stayed in centre, 2x4-inch ceiling joist, stayed to cover beams; for walls 12-inch boards, dressed on both sides; battens on outside, double lined with tar paper; walls and ceiling and ceiled floor of rough boards double lined with tar paper and covered with No. 3 flooring plank—have all of the plank used inside dressed. South and north door to have transoms over them, south end to have glass sash for winter, and Venetian blinds for summer, a window at north end of each side hall. Nest divisions 18 inches high, covered with board; side pieces 6 inches high, without bottoms, and set loose on floor that they may be taken out through roosting, roosts to be cleaned. Wire partition between roosting and laying rooms.

Have the work neatly and well done, and you will have a paying home for 50 to 60 chickens. Have in each, gable for ventilation, and openings in ceiling, to let hot air from rooms.

A member of the Western New York Farmers' Club, says that he would change flocks often. Brahmas are good, gentle, quiet, but persistent sitters. Likes Leghorns very well, but Plymouth Rocks suit best of all. Has a dozen hens which nearly keeps his family in eggs the year round. They are healthy; never had one sick. Brahmas were often sick. Would give a great variety of food; wheat screenings are good, and all kinds of table scraps are good, with the exception of pickles. Plymouth Rocks are of good size, and their meat is good. Eggs are large and of good quality. There is a great difference in quality of eggs from different breeds. Food affects the quality of eggs.

The Apiary

Early Breeding.

It has been requested, by many readers, that some one give a plan in the apiary department, of how to feed bees, with a view of stimulating them to early breeding, a matter of no small importance to the bee-keeper. I assure you all, and in order to set our bee-keeping friends to thinking for themselves, I will only give one plan to bring about the much desired and too often needed result. I have been for many years an humble bee-keeper, watching the true course of nature in all her many ways in furnishing and supplying her tiny creatures with the necessary food at the proper seasons of the year, to meet the demands of natural laws for the future prosperity of her handiwork, therefore we should profit by a close observance of those natural laws, and apply them in the proper management of our stock (the bees), as does the shepherd his flocks, in keeping watch by day as well as by night, when many valuable and useful lessons may be learned. But enough of this. We now proceed to business, and will say to "M. G.," of Ripley, Ohio, as well as many others who inquired for such information—First, procure a few pounds of nice extra C. or A. coffee-sugar, and dissolve about two pounds of sugar in three pints of boiling water; this will make a thin molasses or sirup, which can be fed the bees by placing some old bits of combs in the surplus chamber of your hive, just over the brood-nest, so the bees can go up and crawl over the combs; and when your sirup is cool, so it will not melt the combs, you can fill up the cells and close up your hive, so that robbers may not attack them, and keep watch of your bees and notice two or three times a week to see if they are using their artificial food; if not, then drop one or two drops of anise oil on the combs, or, what might be still better, put a few quarts of sirup in a jug and ten or fifteen drops of the anise oil in an ounce of alcohol, and shake it well so as to cut the oil, and then put of this preparation say fifteen or twenty drops in the jug of sirup and shake well and feed as before directed on old combs placed in the top of your hive. You can also feed the sirup in glass tumblers by filling them up and tying a good piece of muslin over the tumblers and turn upside down over a hole in the top of your hive. Sometimes it is best to place two small sticks in the top of your hive and invert the tumbler over them so the bees can have free access all around and under the tumbler, and you will be surprised at the little workers how fast they can carry the feed down, taking it through the cloth, which I think is much the best plan. It has been my plan for the last thirty-five years to feed bees early as possible in spring, both sirup as well as artificial pollen. Rye flour, just ground, not bolted, is good; oat meal finely ground is excellent, either of which can be fed in shallow boxes placed in some convenient dry place where the bees can visit it and gather it at will and pleasure, which they will do if a few drops of the oil, as before refined, too, is placed in the boxes as an incentive to entice the little workers to partake more freely. And thus your stock of bees will increase rapidly, as well as enhance in value for the good of their keeper, and aid the bee-keeping interests of our beloved country to add many millions of pounds to the richest and best of all sweets of Uncle Sam's already large and grand storehouse, in which there is yet room for millions more to be garnered for the good of her loyal subjects, at a comparative small cost. I am most sincerely the well-wisher and friend of all practical apiarians.—*J. M. Hicks, Cincinnati Enquirer.*

Chaff.

The new directory of Philadelphia contains the names of nearly 3000 Smiths.

George William Curtis is to deliver in Boston a public eulogy on Wendell Phillips.

For Coughs and Throat Disorders use Brown's Bronchial Troches. "Have never changed my mind respecting them, except I think better of that which I began thinking well of.—Rev. Henry Ward Beecher. Sold only in boxes.

The negroes of Charlotte, N. C., have caught the Salvation Army idea, and are holding meetings daily.

Fifty of the one hundred members of the Iowa House of Representatives say they have no religious preferences.

Eight Years' Scrofula Cured.—A valued correspondent, Albert Simpson, Esq., writing from Peoria, Ill., says: "Samaritan Nervine cured me of scrofula, after having suffered for 8 years with the disease." Mr. Simpson lives in Peoria. Ask him. Your druggist keeps it. $1 50.

Since the passage of the homestead act, May 20, 1862, to the 30th of June last, 698,630 homesteads have been taken up by settlers.

The Dominion Government Bank returns for January show that the Canadian banks had $19,346,687 employed in the United States.

Come, Gentle Spring, and bring malaria, dyspepsia, biliousness, torpidity of liver and a train of kindred maladies. Fortunately Kidney-Wort is at hand. It may be had of the nearest druggist and will purify the system, correct the stomach and bowels, stimulate the liver and kidneys to healthy action, remove all poisonous humors and make you feel like a new man. As a spring medicine, tonic and blood Purifier it has no equal.

A California millionaire cheated the Probate Court out of its dues by giving all his property to his brother just before he died. His estate was therefore reported as being of no value.

A Genuine Tonic.—Iron and calysaya bark in proper combination with the phosphates, have long been regarded as the purest remedial agent for dyspepsia, general debility, and the train of ills that follow a weakened physical nature. Dr. Harter's Iron Tonic has proven the superior value of such a combination. It is a remedy that has come into general use for the troubles indicated, and no prominent druggist throughout the country is without it, so wide spread is the public demand for it. Iron of itself and calisaya bark as well—the two great specifics so much used—are very disagreeable medicines to take, and physicians often dislike to give them. In Dr. Harter's Tonic they are combined in a palatable preparation, and one that does away with the need of doctor's prescriptions and doctor's bills for a large class of diseases that afflict the human family.

A general rejoicing has pervaded the country at the announcement that nine circuses are to make their gleeful circuits this summer.

Patrick Barry

Horticultural.

[Judge Samuel Miller, Bluffton, Mo. will assist in conducting the Horticultural Department in this journal. Any inquiries addressed to him willoe promptly answered through the RURAL WORLD.]

Patrick Barry.

The name of this great man is familiar to every fruit-grower in the United States. He is one of the fathers of the nursery business of this country. The firm of Ellwanger & Barry is known wherever fruit trees are cultivated, and everywhere esteemed for reliability, integrity and trustworthiness. Their business has been the largest in their line of any firm in this country. But Mr. Barry has not devoted all his time to his business. He has labored diligently to classify and systematize our fruits. He has done a great work for the cause of pomology and horticulture generally. He has tested varieties at great labor and cost, and recommended the good, and discarded the poor. The *Prairie Farmer* gives the following biographical history:

"Mr. Barry was born near Belfast, Ireland, in 1816. His father was a small farmer, but he gave the boy a good education, and at eighteen he was appointed to teach in one of the national schools. At the age of twenty he resigned his position, and came to America, where he began clerking in the Linnæan nurseries, at Flushing, L. I. During his stay of four years here he mastered the principles of the nursery business. In 1840 he moved to Rochester, and forming a partnership with Mr. Ellwanger, started the famous Mount Hope Nurseries. They began on a tract of but seven acres. In 1852 he issued the "Fruit Garden," which is to this day a standard work among horticulturists. Previous to this he had written largely for the agricultural and horticultural press. In 1852 he also began editing the *Horticulturist*, then owned by Mr. James Vick. Mr. Barry's second great work, and the one involving most time and labor was the Catalogue of the American Pomological Society.

Mr Barry has long been President of the Western New York Horticultural Society. He is also a member of the Board of Control of the New York Experiment Station. He has served several terms in the city council of Rochester and in the Board of Supervisors of the county. Mr. Barry is an active business man and besides his great labor in conducting the nursery affairs, he discharges the duties of President of many corporate enterprises in which he has large financial interests. Mr. Barry was happily married in 1847, and the amiable sharer of his hardships and his successes is still living."

Received two apples from J. B. Gill, Springdale, Ark. Ate one, and will keep the other as long as sound, and report.

Col. Colman has expressed my opinion of it exactly in his description.

S. MILLER.

The cultivation of asparagus, says the *American Cultivator*, need not be so laborious and expensive as usually recommended. Select a piece of ground free from sod and weeds, apply much manure, and ashes if possible, and dig the ground ten inches or a foot deep. Plant from one to two-year-old roots about eighteen inches apart each way. The same authority recommends cutting down the stocks in the fall, covering the bed with straw, and burning it off as soon as it becomes dry in the spring. Two or three quarts of salt may be applied to the square rod. Asparagus should not be cut off below the surface of the ground, and it should not be cut later than the middle of July.

Locust Seed.

Of course they must be scalded, if they were kept dry over winter. Pour scalding water over them, and keep stirring the seed at the same time. Let them soak for a few days, and if they don't swell give them another dose of hot water, but not quite up to boiling point. When the seed are swollen plant in rows four feet apart, six inches apart in the row. In two years they will be quite large enough to transplant to where they are to grow. There are many waste, rocky places, on which the seeds might be planted at once, and save the trouble of transplanting. About fifty years ago I helped to plant in the latter place, and on visiting the old place some twenty years after, saw trees one foot in diameter, and which would have been worth $5 apiece for posts. Here where the borer is so destructive, I would advise the planting of Catalpa instead. It is a faster grower, a beautiful tree, and the timber almost indestructible.

Fruit and Vegetable Evaporation.

The Plummer Patent Process known generally as the "California Process" of evaporation, is carrying everything before it here, as it has done on the Pacific coast. Mr. Plummer and the Secretary of the company formed for manufacturing at Leavenworth, Kan., recently visited the Peninsular State, and the horticulturists and fruit men there received with great favor the new process of evaporation. Quite a number of large factory evaporators have already been purchased there and the company contemplate building a branch factory in Michigan.

Answer to T—Russian Mulberry.

I once bought a lot of cuttings of the above, but failed to grow them from some cause, since then have seen conflicting opinions as to the value of the fruit, so that I have not cared much about it.

But as a fast growing tree to make valuable timber there is no disputing. The mulberry is very valuable as timber for posts, as we find trees laying on the ground since 1844 still sound.

Downing's Everbearing, is perhaps the best fruit of any of the mulberry tribe. I had a fine tree, but it was destroyed. Almost any nurseryman can supply the trees.

Yes, the Yucca, or Adams needle, Spanish Bayonet variously called, is a handsome flower, and the leaves when half dried make an excellent tying material. We have been using it for that purpose for years. S. MILLER.

The Turner Raspberry.

H. L., asks whether it is a good one to plant? Of course it is, and I doubt whether any of the new ones will supplant it for some time to come. Perfectly hardy, productive, large, and excellent quality. It will not ship quite as well as Thwack, but is earlier and better. The only drawback is its profuse suckering, which can be cured by a free use of the hoe while they are young. Five canes left grow in a hill, pinched when they are three feet high, will be sufficient. The fruit will be finer, and plenty of it.

S. M.

P. S. My Turner and Thwack came through the past winter all right.

The James Vick Strawberry.

There are many inquiries about the above strawberry, and wonder why I don't make more fuss about it. It does not need it from me, as it has proved itself wherever tried. All necessary to say here, that it is about all one can ask in a strawberry, except that it is not as large as some, but in all other respects it is about perfect. I have the plants for sale of course, and will furnish the subscribers of the RURAL WORLD plants at reduced prices. Catalogue price, $1 per dozen; I will send these at 50 cents per dozen. Per 100 catalogue price $4; I will send subscriber at $2 per 100, by mail, postpaid.

I have no melon seed for distribution this season, but have purchased of some of the best new ones, and can supply seed next season, if spared so long.

S. MILLER.

I have about one and one-half acres in two small vineyards; one has been planted about twenty, and the other ten or twelve years, but having been absent from here most of the time during the latter period little or no attention has been given them, hence they have done very poorly. You can, therefore, readily comprehend not only their ungainly appearance, but their matted condition. I have been thinking of cutting them down, and budding the main stems, (as directed in Bushberg's third edition *Manual* recently published) with other varieties, but having no experience in this kind of work shall esteem it a favor if you will give me some advice in the matter, and also inform me where I can purchase the grape cuttings or buds. Shall be g ad to hear from you at your earliest convenience. Truly yours,

P. M. KENT, Sr.

White Co., Ind.

My advice would be to cut them off at the ground, and let three shoots grow from each one. Carry all the wood out or burn it on the ground. By next fall you will have a new vineyard, which you can graft the following spring, or let them bear, as you may be sure of a clean crop of fruit. I have usually wood of all the new and leading varieties to graft, but would not advise you to graft on these old stalks. S. M.

Grafting a Bearing Apple Tree.

Can you give a new beginner some instructions how to graft apple trees, say one from six to ten years old; that is, to put some good fruit in such a tree? I have a thrifty growing tree on my farm that is a seedling. And what preparation makes the best cement for grafting? Please answer through the RURAL WORLD. N. S. H.

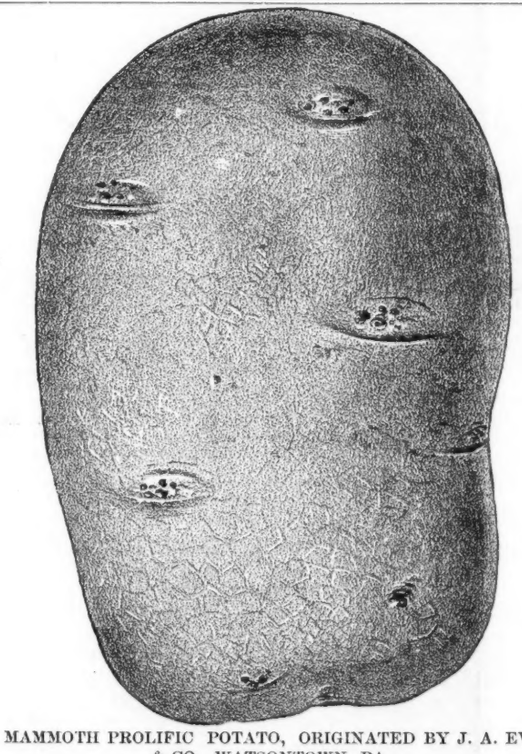
Sawloff the limbs where one inch in diameter, smooth the stub with a sharp knife. Split down with a thin bladed straw knife until by wedging it apart it will take the graft, which should be of three edges cut wedged shape, with one side a little the thickest and the upper part of the edge cover with a bud which should be on the outside. Stick the gaft in two-thirds of the wedge, pull out the wedge that held the cut apart and cement. Take 1 lb. rosin, one-half lb. beeswax, and one-fourth tallow; melt over a slow fire, until all is melted, then stir well and pour into water about 70° in temperature. Then grease your hands and work it like taffy until it is clear and yellow.

Have it in an iron kettle and heat it over a slow fire until thin, apply with a brush or little paddle. See that you cover all the low wood, and close the slit well that is made by splitting the stalk.

If you can get any person who knows how to graft, it will be well for you to get him to show you. If I was with you five minutes could learn you more than in a column of writing. If a community of young men would appoint a time to gather in one place, I could give them instructions practicable, that would never be forgotten, in a few hours. All I would charge would be my expenses and moderate wages. S. M.

Potatoes—New Varieties and how they are Obtained.

That the possibility for improvement in the potato is greater than that of any other farm crop, is evident, but that effort at improvement must constantly be in progress, to keep them up to their present high standard or advance them beyond, is absolutely necessary. The potato has been gradually and steadily improved from a "tiny little root" as its parent, to the large, beautiful tubers grown at the present day; yet, whatever care, selection and cultivation has done for them, it has never been able to eradicate that inclinatition to revert to its national condition, which inclination is manifest to a greater or less extent, everywhere in the vegetable kingdom; and, as in the case of the potato, the greatest care and most careful cultivation will not suffice to keep them from deteriorating, although it will, to a certain extent arrest and delay the process. But thanks to an allwise Providence, who has provided, and the researches of man, who has discovered, a way not only to keep the species to its present high standard but gradually advance it beyond. We refer to our knowledge of the way or power to create new varieties. The medium employed is the seed ball. The tiny seed which the ball contains is sown, the plants which they produce, and which are the same as the growth from tubers, are planted and treated the same as though growing a crop of tubers, which in reality is the case. At the proper time the crop is harvested, which is a motley one, each stalk having produced a different variety, and as yet there is nothing by which you can determine their individual value. If the growth of all has been equally favorable, the varieties that show the greatest vigor or the best quality will eventually prove the most valuable Thousands of seedlings must thus be originated before one is obtained of as great or greater value than its parents; and a new variety, that surpasses all others, is hardly discovered once in a decade. The third year from the seed will fix their characteristics and determine their value. In the majority of cases the work has been for naught, but if the result has been the production of an extra fine variety, the originator may consider himself well repaid, for a fortune has been and will be again the price of such, and the benefit to the country at large cannot be estimated.



O. K. MAMMOTH PROLIFIC POTATO, ORIGINATED BY J. A. EVERITT & CO., WATSONTOWN, PA.

To Fruit and Vegetable Shippers.

EDITOR RURAL WORLD: The present time is as appropriate as any to consider and discuss anything new or commendable in connection with the marketing of fruits and vegetables. Our southern friends, already occupied with the preparatory labors incident to the season's business, will be more interested in this subject than their co-laborers north. The southern producer is looking to the markets of the North and West to dispose of his goods, while the people further north rely largely on local markets, so the matter of transportation is replete with interest to the former. I am at this time receiving numerous letters pertaining to the matter, and knowing your journal reaches a greater number of people interested in this subject than any other published, I avail myself of your generous offer of space to present the matter at length to your readers.

Every section of the South where this industry is spreading is anxiously seeking such information as will enable the producers to get out of the business all the money it is possible of yielding. The business of truck gardening in the South, though claiming a good deal of attention already, is one of the infant industries and insignificant so far, compared to what it will be ten years hence, and its future importance has become clearly visible to the transportation companies, who are taking steps to care for it. They recognize it as an important factor in the development of traffic and enhancing the value of lands along their lines, and in fostering this industry they are building up their own business and profits.

The business of furnishing such products for northern markets has proved highly remunerative already at so many different points that we find it spreading with marked rapidity, and many sections of the South still offer inviting fields to intelligent labor of this character. The most important question then arising in connection with the industry is that of safe and speedy

TRANSPORTATION

at reasonable rates. I have before me a circular just issued by the American Refrigerator Transit Company, which throws considerable light on the subject. The company is seeking the carrying of all this perishable stuff to northern markets, returning their cars filled with goods needed in southern cities, such as meats, butter, cheese, beer, etc. They are making special efforts to secure these shipments and have done considerable in this line the past season, and generally I learn very successfully. Palestine, Texas, is one of the places that loaded a refrigerator car almost daily for St. Louis or Chicago, with fruits and vegetables last year. The various railroad companies offer special inducements to the Refrigerator Company to place cars on their lines, as it secures them additional business and at the same time relieves them of considerable anxiety and loss, the result of carrying by regular freight such perishable goods as require cold storage in transit. Of course a large portion of the shipments will not stand the usually steep rates exacted by the express companies, and through, or fast freights, are next the best means accessible of shipping, and are the trains to which the refrigerator cars are attached.

It may be stated here that more injury is inflicted by the intense heat to which these goods are exposed, than arises through the length of time the goods are on the way, and if the temperature around them is reduced 20 to 30 degrees, it makes a wonderful difference in their appearance on arrival. I have seen so much fruits and vegetables arrive here, in my experience as a receiver and seller the past fifteen years—so much that was half spoiled on arrival, wilted, mouldy, discolored, stale, and partly decayed, really unfit for human food, that I am as anxious to be relieved from the difficult work of finding a purchaser for them, as the shipper is to secure such facilities as will place them here in presentable condition. I believe at points where shipping is extensively conducted, such arrangements can be effected with the Refrigerator Company, as will prove mutually beneficial. I regard the refrigerator as essentially important in the transportation of such goods as cannot afford express rates, and at least worthy of a fair trial.

The cost does not figure in the case at all. A refrigerator car can be had at the same rate as a common freight car, and the shipper is called on to pay only for the ice required. Two contracts are prepared by the A. R. T. Company. Here is the first one, the shipper forwarding at his own risk, and filling the ice chambers in the car himself:

OWNER'S RISK CONTRACT.

1. The American Refrigerator Transit Company, and forwarding lines with which it connects, and which may receive said property, shall not be liable for any damage occasioned by improper packing, or from the leakage or breakage of packages, or for any loss or damage occasioned by wet, dirt, fire or loss of weight, or for any loss, damage or delay of goods, occasioned by mob violence, lead to some good results, and serve to throw a flood of light on the subject, something I know the RURAL earnestly seeks in the interest of its many readers.

P. M. KIELY.

St. Louis, March 25th, 1884.

Send for Vick's Illustrated Price List of Potatoes, free to all applicants. Prices reduced, and varieties procured and best. Address for it, James Vick, Rochester, N. Y.

Although potatoes are cheap this season, it is no good reason not to plant the choicest kinds. The Early Mayflower is highly spoken of as of excellent quality and productive. It is for sale by the old reliable firm of J. M. Thornburn & Co., 15 John street. N. Y. Anything in the seed or vegetable line can be procured from them. Their illustrated catalogue sent free. Send postal asking for it.

"Rough on Rats."

Clears out rats, mice, roaches, flies, ants, bed-bugs, skunks, chipmunks, gophers. 15c. Druggists.

COLMAN'S RURAL WORLD

THIRTY-SEVENTH YEAR.

BY NORMAN J. COLMAN

PUBLISHED WEEKLY

AT $1 50 PER YEAR; OR EIGHT MONTHS $1 00.

ADVERTISING: 40 cents per line of agate space; reduction on large or long time advertisements.

Address NORMAN J. COLMAN, Publisher 600 Olive Street, St. Louis, Mo.

(Advertisers will find the RURAL WORLD one of the best advertising mediums of its class in the country. This is the uniform testimony of all who have given it a trial. Many of our largest advertising patrons have used it for more than a quarter of a century, which is the highest possible recommendation of its value as an advertising medium.

ADDRESSES.

Norman J. Colman has accepted invitations to deliver addresses at the following places and times:

SPRINGFIELD, MO., April 4th, Practicability of Creameries in Missouri.

ROLLA, MO., April 5th, on Missouri as Adapted to the Dairy and Creamery Business.

FAYETTE, MO., April 12th, Missouri as Adapted to the Creamery Industry.

JACKSON, TENN., May 9th, before the West Tennessee Horticultural Society on "Sorghum Culture—Tennessee Can and Should Produce Her Own Sirup and Sugar."

AGRICULTURAL COLLEGE, Mississippi, May 18th, Annual Address at Commencement Exercises of College.

OMAHA, Nebraska, Sep. 5th, Annual Address at the Nebraska State Fair.

R. P. GUSTIN, Bay City, Mich., has been made Vice-President of the American Berkshire Association for his State. This is a good appointment.

THE Springfield Jersey Cattle Club sends an agent to the Eastern States next week, to purchase a car load of cows and heifers to supply the immediate demand for Jerseys at Springfield, Ills., and vicinity.

BARLEY and its cultivation is generally overlooked by the farmers of Missouri and Illinois, yet the receipts in St. Louis are steadily increasing each year, induced by good prices. Last year 2,860,798 bushels was sold here—nearly all to the brewers, who turned out with its aid 1,000,000 barrels of beer.

ST. LOUIS last year received twenty million bushels corn against fourteen and a half millions the previous year, but the city shows a big falling off in the receipts of wheat as compared with those of 1882 when the city received twenty million bushels, and only fifteen millions in 1883. The shortage last year was owing entirely to the light crop in the territory tributary to this market.

Now a number of our Arkansas subscribers who reported their peaches all dead a month ago are anxious to recall or modify their statements. We are now assured that the fruit belt along the St. Louis Iron Mountain & Southern R. R., will have at least half a crop, and upon reflection and a recent examination of the fruit buds they are unanimous in declaring the late severe freeze rather a blessing than a blasting or blighting visitation.

MR. G. B. BOTHWELL, of Breckenridge, Mo., intends to have a public shearing on his farm this year on the 10th of April [illegible] advises us that all who are [illegible] are at liberty to shear and [illegible]. Now we have this to say of Mr. Bothwell, he has many sheep to shear, and thousand of them to show, and his shearing will be worth seeing. The wool growers of the West will, he says, find something there worth looking at. He has 1100 rams for sale and 250 of these are registered Vermont Merinos. Isn't that good for Bro. Bothwell?

LAST year St. Louis received and disposed of one million dollars worth of green apples, as shown in our issue of March 20th. Half of this amount was credited to this State. It should have been added that this by no means represented the apple product of the State, as some of the best producing sections do not ship here, except on rare occasions. Kansas City, too, is a big apple market for a great many Missouri growers, while many of the principal operators in this line in Iowa and the northwest come direct to this State for their supplies every year.

THROUGH a number of sources considerable information has been recently compiled relative to the condition of the winter wheat crop and future prospects. The results of the inquiries are very gratifying and the prospects for at least a fair yield are good. The news had a most depressing influence at the leading grain centres, where the speculators were soon hammering down the prices (futures) and many of the operators were wrecked financially before the excitement subsided—the market declining in a few days 8 to 9 cents a bushel—notably May wheat—or rather wheat for May delivery.

OUR horticultural friends who are constantly seeking distant markets for their products, and more especially southern fruit and vegetable shippers, will be interested in the lengthy communication in our horticultural department, written by Mr. P. M. Kiely. Transportation is the all important question to many of these people and if the refrigerator cars can be had as cheaply as freight cars, there should be no hesitation about testing them thoroughly when the experiment costs so little. When fresh beef killed in Texas or Colorado can be successfully shipped to New York, why cannot other commodities equally perishable?

ST. LOUIS has been losing its prestige for years as a tobacco market. The State is not producing as much of the weed as it did 6 to 8 years ago. The prices prevailing now, and for several years past, are higher, and why the supplies have not increased is difficult of explanation. A number of intelligent and experienced cultivators in those counties best adapted to its production enlarged their fields devoted to it, and have made money, especially those parties who turned their attention to the Burley, the best variety ever introduced in the State. Missouri raised last year only nine million pounds, when twenty millions could have been very profitably produced.

EDITOR RURAL WORLD: I am requested by the President of the Wool Growers' Association to announce that the time of holding the national convention of Wool Growers has been changed from May 7th, to May 19th, at the Grand Pacific Hotel at Chicago. Will you please so announce.

ALBERT CHAPMAN.

Secretary Vermont Sheep Breeders Association, Middlebury, Vermont.

A CREAMERY IN BELLEVILLE, ILL.

The editor of the RURAL WORLD, Norman J. Colman, and Col. R. F. Smiley, of the Southwestern Creamery Association, Holt & Hall, of Kansas City, Mo., proprietors, paid a visit to Belleville, Ills., last Saturday on the invitation of the St. Clair County Thoroughbred Stock Association, to talk to them on the creamery business. It was a busy time with the farmers, for the weather was fine and they anxious to get into the field with the plow as early as possible, still the large court-room was crowded with an intelligent and appreciative audience, and the speakers listened to with the closest attention.

Col. Colman had to get away by an early train, but engaged the attention of his audience for nearly an hour, speaking first of farming generally, and then of dairy farming in particular as adapted to our soil, grasses, climate, etc., etc., and their capacity for the production of a first-class article of merchantable butter that shall command the highest prices in the best markets of the world.

Col. R. F. Smiley had, of course, every detail of the creamery business at finger ends, and held the attention of his audience very closely for over an hour. He pictured the butter from a thousand farms as displayed on the shelves of the country groceries, marked the price usually obtained for it, contrasted it with the product of the same cows brought to one central factory, handled in one way by skilled workmen at the requisite time and temperature and by the latest improved machinery, all made in one way by that machinery, salted, colored, packed and shipped to market in the best packages, and bringing at least twice the price, and giving the highest satisfaction.

He gave a brief historical sketch of the creamery as an institution of modern commerce, told how it originated with Mr. Stewart, of Iowa, some fourteen years ago, how at that time there was but little butter made in the West, worthy of the name, and certainly unsalable in the East or any other market of the world, how the system grew until they now number from 1,500 to 2,000 in the Mississippi Valley, and are every day increasing. He presented facts and figures to show that, whereas then the farms of the West were heavily handicapped with mortgages for money borrowed from Eastern capitalists, these same farms are now in grass, needing much less capital and labor to run them, are free of debt, and their owners making much more money than on the grain farming system.

Following his subject in logical and consecutive order, he referred to the well known fact that grain farming even on the rich prairies of Illinois, was not only depreciating the soil because nothing of what was taken from it was returned to it, and because repeated cropping produced a more or less diseased condition of the soil, and more destructive insects than grain, he clearly showed that grain farming could be, in very many cases, profitably dispensed with, and the land seeded down to grass for a series of years at least, and then grazed by the best milch cows to be had.

Referring to the business of Holt and Hall as builders of creameries, he pointed to the fact that they undertook to erect first class buildings 36x44 feet, with ice house of same size having a capacity of 400 tons, sufficient to last for two years, a creamery able to make 2500 lbs. of butter per day. That they provided the ground and the water too, and a skilled butter maker to run the business. That their buildings were of the best material, having each three air chambers througoout their length and breadth, and that two 300 gallon cream vats and two 300 gallon churns of the latest patents, together with engine, boiler, steam and water pipes and pumps, and indeed all necessary appliances to run a first class creamery; everything being so made and provided as to ensure durability for a large and every-day running concern.

The firm, he said, became interested to the extent of $1000 in every creamery they erected, thus not only making themselves stockholders but justifying, by the employment of their own butter maker, the use of their own brand (used now by more than sixty creameries) and their own refrigerator cars to gather the butter in one, five or ten thousand lb. lots to any market in the country, and for any market in the world.

This and very much more of like character he said and, as before mentioned, carried his audience with him from the beginning to the end of his address; and Messrs. Holt and Hall through their general manager left an impression on the minds of the people of St. Clair county that no time can eradicate.

LETTER FROM KANSAS.

COL. COLMAN: You should be likened unto wine—as you grow older you grow better.

The RURAL WORLD is a credit to the Mississippi Valley, and of right should be encouraged. You preach and teach the true value of thorough breeding—as a matter of fact a thoroughbred never grows old—you are a thoroughbred, and may you live forever.

The winter wheat in my section comes out of winter quarters in magnificent shape. It is at the present writing looking splendid—none killed—not even the late sowing.

As to fruit, I am afraid with the exception of apples and strawberries, that we are left—and left badly—but we can stand almost anything, if the wheat is good.

No cattle disease in Doniphan county, and hogs are generally healthy.

I have a splendid variety of fall wheat which I shall advertise in due season, all western farmers should have it.

Yours, THOS. HENSHALL.

Doniphan Co., Kan.

The Grandest of Arts and Sciences.

Of all the arts and sciences, agriculture is the grandest, the most indispensable to man, the most universal. What! Farming an art and a science? Truly so, when practiced as it ought to be, and as it is coming to be. Name me anything pertaining to the practice of an art or any science, which does not enter into that of agriculture somewhere or at some time. Why then has this, our so useful art and science, been held in such low esteem? Ignorance and neglect—these are the why. It is as though sculpture had been left to stone cutters; painting to sign painters; medicine to horse leeches and hair cutters; chemistry to soap boilers; astronomy to fortune tellers. Law once a science, has fallen into contempt by this neglect of society and its abandonment to ignorami. Statesmanship has become political wire pulling, and as an art and science has become lost. You may think this a joke. May be so, but 'tis a most sorry one.

But is it not true that all these fine arts, these glorious, star-eyed sciences, were once down in the mire, abandoned and despised, while only war and gallantry were callings for gentlemen?

It is not the mere hand labor that makes a thing so looked down on. I deny this emphatically, for some arts and some sciences require hard hand labor, and that too, of the most filthy kind. It is the thought and care and skill required and given, to produce results useful to man, that have gradually taken medicine, sculpture, painting and astronomy, from their low places, and placed them highest in the scale. There is no art or science could hold its place against the neglect and carelessness to which agriculture has been abandoned. But a change is coming. Ere long, in the course of Progress, no catastrophe happening, farming, yes Farming, (spelled with a big F) will stand highest of all the callings of man. Art and science have quietly been ministering to this result, almost unsuspected.

And we have not the remotest idea of the infinite scope agriculture is to take. Our duty is to move on in the order of the great law of development and assist in directing attention to this grandest of themes—grander than any ever yet "the sword hath pleaded or the trumpet hath proclaimed." And now, Mr. RURAL WORLD, not to flatter you and your fellow captains in this grandest division in the great army of progess, how much nobler in reality is your work than if you were running some party organ and aiding in the political ruin of your country by binding the people to one or another of the faction leaders whose sole object is the mighty spoil which administering and making statutes, commonly called governing, has become. And how much you have to do! What a boundless field for labor! Already the mere literature of agriculture, which once consisted only of the yearly almanac, occupies many shelves. And the time is coming when he who is conversant with that literature will have a universal education. Nay more!

All the doctrines of morality will be contained therein. And it is to be hoped that the "morals of agriculture" will receive more and more attention. The man who knows and does his whole duty by his horse and his cattle, and all the dumb dependents does not need to study his duty toward his fellow man. And conversely, he who pretends to be a christian or even a gentleman, and ill treats or neglects his horse, is a hypocrite and knave. On this subject alone how much can be well said. I was much struck by a remark from an exchange in your last week's issue on care of horses, to the effect that these animals are much like human beings; mourn over neglect; "get melancholy in confinement; love variety, flattery and little attentions. When you go home at night, see that your horse is comfortable; when you take a bite, give him one also." All that is so true. For our offences against our animals alone, we deserve purgatory, at least. HOLT.

Oregon, Mo., March 23rd, 1884.

—THE consumption of hog meat in the United States is something wonderful to contemplate, and the figures inspire us with increased respect for that peculiar institution, the American stomach. The yearly slaughter of hogs in the Union is about 52,000,000, producing about 4,000,000,000 pounds of meat, of which about 1,000,000,000 pounds are sent abroad. This leaves at least 3,000,000,000 pounds to be consumed by a little over 50,000,000 people, an average of 60 pounds per year for each man, woman and child in Uncle Sam's family.

Notes-Correspondence.

—If you want bargains in roses send to C. Young & Sons, 1406 Olive St., St. Louis, Mo., and get their 64 page catalogue free.

—Any farmer wanting the best harrow ever made should send for a free illustrated pamphlet, giving description, prices, kinds, etc., to C. R. Reitz, 600 Olive St., St. Louis, Mo. It is just what every farmer, corn or cane grower needs, and will doubly pay for itself, in saving hoeing, weeding, etc., the first season. Send for the pamphlet.

—Allow me to ask your readers a few questions in regard to raising stock peas. I want to sow some for my hogs to be hogged down after timothy and clover meadow is harvested. What time can I plant them, and will it pay to hog them down? How long does it take them to mature from planting, and how many bushels to the acre? Will it pay to sow some oats with them? We are having some fine weather now, but have had a very cold winter. Wheat looks bad.—G. W. D., Bethany, Mo.

—Dr. W. F. Adams' Turkish Bath Establishment has been overhauled, renovated and put in the best order. It is patronized by some of the best ladies and gentlemen of St. Louis, and merits the support of all who believe that cleanliness is next to godliness. It not only promotes health but restores it from many diseases without medicine. It is very efficacious in all malarial maladies. Read the advertisement of this establishment in the RURAL WORLD and try the Turkish bath. It is a great luxury.

—To-day I have tried to plow, but found it too wet and the frost in the ground yet. Wheat is not looking well, much is drawn entirely out of the ground by freezing and thawing every day in the month. If these cold nights do not stop soon it will ruin the wheat. Stock of all kinds has done well with plenty of good feed. I am working hard to send you some new subscribers for the RURAL WORLD. It's the best agricultural paper I know of and every farmer should read it.—C. A. G., Dardenne P. O., Mo.

—Bolivar, Mo., March 24.—Editor RURAL WORLD: I have a flock of sheep of fifty in number. I commenced last November with twenty-five. My sheep are all good common sheep. I would like your advice as to what stock of sheep I should cross them with to get the greatest amount of wool and mutton. Grass is up, so sheep are doing well without feed. Wheat looks badly; peaches all dead; prospects for apples good; oats sowing will be late.—N. S. H.......For the greatest amount of both wool and mutton breed to a Shropshire ram.

—The requisite knowledge to write or compile a book that shall be of value to the farming community, is possessed by very few, even though the writers may confine themselves to one theme. When, therefore, a book appears that treats intelligently and in interesting language of the farm and home in its many phases, we are induced to give it a welcome to our library and recommend it to the progressive farmer as a work that can be oft consulted by him with pleasure and profit. We refer to the book written by the Hon. Jonathan Periam, entitled *The Home and Farm Manual*, and published by N. D. Thompson & Co., of St. Louis. The book in reality is an encyclopædia of valuable information to the farmer and all lovers of rural life, being alike interesting to the housekeeper, her husband, or her children. It contains over one thousand pages, has twelve hundred illustrations, and many colored plates and charts, forming the most effectual method of object teaching, whereby the dryest of statistics are so presented as to be easy of understanding to the simplest of minds, presenting solutions to many problems that have oft confused the scholar. It treats of the Farm Crops, Stock, Garden, Orchard, Birds and Insects, Home, the Parlor and the Kitchen. Tells how to cook, how to be your own Doctor, how to build a house or barn, in fact it forms a library in itself. It is sold by subscription only, so those who desire to secure an agency to solicit subscriptions for the book should apply at once to the publishers.

—*The Art Amateur* for April gives attractive designs of passion flowers for screen embroidery and blackberries for panel painting, some interesting pages of Oriental diaper ornaments, a curious old German alphabet, and some striking designs for furniture panels after Goujon. Notable features are the numerous and excellent illustrations of objects in the famous Castellani collection now being sold at Rome, the clever sketches of pictures in the exhibitions of the French Water Color Society and the Boston Paint and Clay Club and the interesting notice and examples of the work of J. A. Habert-Dys, one of the principal designers for L'ART. The practical departments are well filled; Montezuma's Note Book and the Dramatic Feuilleton are as sparkling as ever, and in all respects the number is fully up to the high standard of this admirable magazine. Price 35 cents; $4 a year. Montague Marks, Publisher, 23 Union Square, N. Y.

The Cattle Yard.

Forthcoming Sales.

M. H. Cochrane (Polled cattle), Kansas City, April 8 and 9.

Thos. Hughes (Short-horns), Chicago, April 9 and 10.

George Leigh (Imp. Herefords), Chicago, April 10.

Geary Bros. and George Whitfield (Polled cattle), Kansas City, April 15, 16 and 17.

Prather and Bennett (Short-horns), Safford, Kas., April 18.

Executors of L. Palmer (Short-horns), Chicago, April 22.

C. M. Gifford & Son (Short-horns), Manhattan, Kas., April 23.

R. L. McDonald (Short-horns), St. Joseph, Mo., Ayril 30.

Lafayette Co. Breeders (Short-horns), Higginsville, Mo., May 1 and 2.

Jackson Co. Breeders (Short-horns), Kansas City, May 6, 7 and 8.

H. D. Ayres (Short-horns), Breckenridge, Mo., May 9.

Thos. H. Crowder and B. Z. & T. M. Taylos (Short-horns), Decatur, Ill., May 13.

Leonard Bros. (Polled cattle), Kansas City, May 13, 14 and 15.

J. C. Stone, Jr. (Short-horns), Leavenworth, Kas., May 27.

W. P. Young (Short-horns), Mt. Pleasant, Ia., May 27.

J. G. Gowan & Son and Col. Thad Hickman (Short-horns), St. Joe, Mo., May 28.

J. S. Latimer & Sons (Short-horns), Abingdon, Ill., May 28.

Strawther Givens (Short-horns) Abingdon, Ill., May 29.

W. T. Hearne (Short-horns), Lee's Summit, Mo.. May 29.

James N. Brown's Sons (Short-horns), Berlin, Ill., June 3.

S. E. Prather and D. W. Smith, (Short-horns), Springfield, Ill., June 4.

Clinton County, Mo., Breeders, (Short-horns), Plattsville, June 4 and 5.

Pickrell, Thomas & Smith (Short-horns), Harristown, Ill., June 5.

Wm. Cummings (Short-horns), Buda, Ill., June 12.

T. W. Harvey (Short-horns), Chicago, June 17.

Thoroughbred Live Stock Association, Higginsville, Mo., Oct. 15 and 16.

Seth E. Ward & Son (Short-horns), Kansas City, first Thursday of the Kansas City Fat Stock Show.

M. H. Cochrane (Herefords and Polled cattle), Monday of the Kansas City Fat Stock Show,

Adams Earl (Herefords), Kansas City, Tuesday of Kansas City Fat Stock Show.

Inter-State Short-horn Breeders, (Short-horns), Kansas City, fifth and sixth day of Kansas City Fat Stock Show.

Adams Earl (Herefords), Chicago, Nov. 20.

Nov. 6th, Jas. C. Smith, Shorthorns, St Louis.

The families of Berkshire pigs bred by Springer Bros., Springfield, Ills., are among the best known and most highly appreciated in both this country and England, and the Springer Brothers have the best possible reputation for the excellence of their stock and for fair dealing. They have spring pigs ready for shipment now.

Mr. John Duffy, of the St. Louis Fair Grounds, reports the birth of a monkey on the 18 March, and the irreverent superintendent says it ought to have come on the day before, St. Patrick's day. He also reports the birth of four pigs from a mule footed Arkansas sow by the China boar—well known by all visitors to the fair grounds. Three of the pigs are black and mule footed and one black and white with natural feet.

Everybody will breathe easier now that it has been definitely settled that we have not had the dreaded foot and mouth disease in the West. But the scare, if it may be called such, will not be without its advantages, as attention has been called to that plague, and to the importance of having legislation that will promptly stamp it out if it makes its appearance. If the bill before Congress is not broad enough and severe enough to eradicate any kind of plague or contagious disease that may befall live stock of any kind, it should be at once amended so as to cover that point. Every part of our country is interested in the suppression of any contagious disorder that may attack any of our live stock, and the general government should have this matter under its immediate charge. There should be no temporizing policy. With the stock constantly increasing in this country, it will be a wonder if in time we do not have many contagious diseases among them, and experts are needed, and the strong arm, and the still stronger purse of the government, are required to stamp them out, and perhaps entire herds may have to be destroyed to make the matter sure. Let us rejoice that we have escaped a great calamity. It is pretty satisfactorily proven that the cause of the loss of feet, and of stock also, is due to eating ergot, found in wild rye, and perhaps in hay where ergot is to be found. Similar afflictions have befallen stock in former years, when ergot flourished, and was harvested and fed to stock. Ergot is a fungus growth, is poisonous, and if it is found to exist, should not be fed to animals.

The Peabody Herd.

We have the gratifying intelligence from Peabody (the well known residence of Will R. and J. K. King, at Marshall, Mo.,) that the herd is doing well on the splendid blue grass of that magnificent farm of 3000 acres.

They report the following calves from Poppy 27th: a bull sired by Acklam Sharon and a splendid fellow—Abe Renick never bred a better one, this is one of the cows purchased at his sale: 93rd Duchess of Goodness, a bull by 72 Duchess of Goodness; 90th Duchess of Goodness, a cow by 66 Duchess of Goodness; Valley Princess 34th, a cow by London Duke 4187; Wiley Duchess, a cow by Viscount Oxford 7th, 49489; Countess, a cow by Viscount Oxford 7th, 49489.

The last two cows were purchased at H. D. Ayres' sale at Marshall, the first a Miss Wiley and the last a Craggs. The Peabody herd and its young herdsman, Junior K. King, are now on the road to fame and fortune.

How many crosses constitute a thoroughbred in cattle—premising you begin breeding a common cow to a thoroughbred bull?

When you get the requisite number of crosses, is the animal subject to entry in herd book? L. L.

Gallatin, Mo.

All animals to be eligible to registry in the Shorthorn herd book must trace on side of both sire and dam to imported ancestry without an out-cross.

Hornless Bull Wanted.

Please inform me where I can get a hornless bull or where I can get information as to the best breed of hornless cattle.

G. C. McH.

Hillsboro, Ill.

By addressing Gudgell & Simpson, Independence, Mo., or W. H. & A. Leonard, Mount Leonard, Mo., both of whose advertisments appear in our breeders' directory. There are few Polled (hornless) cattle in this country but the black cattle of Scotland, they are named respectively, the Aberdeen, Angus and Galloway.

There are a few Polled Norfolks here however, they are English and red. For these and all information regarding them, address Gen'l L. F. Ross, Iowa City, Iowa.

A Fruitful Cow.

The following live stock puzzle by the Gorham (N. H.) *Mountaineer*, was dedicated to the *Drover's Journal*:

A father gave his son a heifer calf. When two years old she drops a heifer calf, and one each year thereafter until twenty-one years old. All of her calves have a calf when two years old, and one each year thereafter until the old cow is twenty-one. Also the whole progeny have heifer calves when two years, and one each year thereafter until the old cow is twenty-one years old. How many in all will he then have? We will give a nice bound book to the one sending the first correct answer.

The *Mountaineer* received about thirty answers and published fourteen, which ranged from 101 to 17,111 head. The latter is correct; so it is seen that if you can only persuade a cow to drop all heifer calves, and have all her progeny do likewise, she may be very fruitful.

The solution is interesting, and is as follows:

Years.	Cows.	Heif'rs.	Calves.
0	0	0	1
1	0	1	0
2	1	0	1
3	1	1	1
4	2	1	2
5	3	2	3
6	5	3	5
7	8	5	8
8	13	8	13
9	21	13	21
10	34	21	44
11	55	34	55
12	89	55	80
13	144	89	144
14	233	144	233
15	377	233	377
16	610	377	610
17	987	610	987
18	1,597	987	2,597
19	2,584	1,597	2,584
20	4,181	2,584	4,181
21	6,765	4,181	6,765

Total, 6,675 cows, 4,181 heifers, 6,765 calves, making a grand total of 17,711.

The editor of the *Mountaineer*, on being asked the relationship of the last of the progeny and the original cow, tells the inquirer that he must keep his own family record.—*Drovers' Journal.*

Prevention Better Than Cure.

The following temperate but timely paragraph from the *Industrialist* is very much to the point and ought to be heeded at headquarters:

The Hatch bill providing for the establishment of a Bureau of Animal Industry within the Department of Agriculture does not appear to be satisfactory in all quarters. The opponents of the bill, unfortunately, seem more ready to criticise than to suggest amendments. They do not see that there is any call for Congressional action yet. Those directly interested in live-stock very generally favor the principles of the bill. Its object is the restriction and stamping out of contagious diseases, particularly pleuro pneumonia, which, on all sides, is admitted to exist in several of the Atlantic States. Prof. Law says that the loss to the country from this disease is two or three millions a year now; and the State governments make very little progress in the way of exterminating it. England temporized when the disease first appeared there, and it is estimated that her loss from pleuro-pneumonia has already reached $500,000,000. If the disease crosses the Alleghanies and gains a foothold in the West, it will be almost beyond control, and will entail a loss simply incalculable. As if to emphasize the necessities for some concerted action that other dread scourge, the foot-and-mouth disease has put in an undoubted appearance since this bill has been before Congress. U. S. veterinarians vouch for the real foot-and-mouth disease in Maine; and Kansas has been startled by the announcement that the same disease exists in Woodson and Lyon counties in this State.

This latter has of course been found to be another and entirely different disease and not contagious.

A Fine Calf.

Chenault Todd received per express Saturday from Kentucky a fine short-horn bull calf nine months old, "Duke of the Floods." He was selected from the fine herd of the veteran short-horn breeder, Abram Renick, of Clark county. He is a beautiful deep red, fine top and bottom lines, fine length and style. His sire 4th Airdrie of Sharon, 8074, a deep red is certainly a fine animal. Mr. Todd tried to buy him when a calf, but his owner Mr. Renick would not price him. His sire Airdrie 3rd was a deep red and one of the most noted bulls used in Mr. Renick's Rose of Sharon herd. The dam of this calf, Duchess 22, is a beautiful red, broad, level, straight back, with fine hips, well sprung ribs, good front, neat head and horns. She was sired by the pure 4th Duke of Geneva, 1750. He is a fine calf and we are glad to see such fine stock coming into our county.—*Howard Co., Mo., Advertiser.*

Short-Horn Beauties.

—Vernon has reason to be proud of its fine stock. Our herds are attracting attention all over our own State and throughout Kansas. J. W. Lillard recently sold a yearling Arabella bull to C. W. Cole of Lafayette county, for $250. This was a magnificent animal, and Mr. Cole selected him after examining the finest herds in the State. Mr. Lillard also sold a bull eleven months old, to A. B. Shipp of Hepler, Kas., for $150; this beautiful calf surprised even his buyer by tipping the beam at 950.—*Southwest Missouri Mail.*

The Horseman.

Stallions Advertised.

Young Harold, J. V. Stryker, Jerseyville, Ills.

Exile, J. V. Stryker, Jerseyville, Ills.

Clay Cuyler, J. V. Stryker, Jerseyville, Ills.

Wm. L. Hull, R. J. Fruin, Meadville, Mo.

Monitor, C. D. Colman, St. Louis, Mo.

Ayres' Hambletonian, H. D. Ayres & Son, Breckenridge, Mo.

Goldsmith, A. McClintock & H. D. Ayres, Breckenridge, Mo.

Whitney & Fesler, Mt. Sterling, Ky., will have a public sale of 150 head of fine horses on the 11th and 12th of April. Great bargains will be obtained at this sale. Send for catalogue.

Those wanting first-class, high bred trotting stock, should not fail to read the advertisement of W. H. Wilson, Cynthiana, Ky. Send to him for a catalogue of the stock that will be sold at public auction on Monday, April 16th.

The Minnesota State Fair Association have elected M. T. Grattan as starting judge for the races at the State Fair this year. Mr. Grattan is a thoroughly posted horseman, familiar with the rules of the National Association, and has the firmness to enforce them. If more of our trotting associations would select competent, honest judges, there would be less rascality on the race courses.

Any one wanting road carts, will find a number of them advertised in the RURAL WORLD. They are being largely used by farmers, doctors and business men, because they are cheaper, less liable to get out of repair, wear longer, cannot be tipped over by a shying horse, and are lighter and handier than the buggy. Those needing a nice cart should send to our advertisers for illustrated circulars, prices, etc.

The advertisement of S. Toomey's Sons, Canal Dover, Ohio, will be found in the RURAL WORLD. This firm has been manufacturing for a long time, sulkies, road and speed wagons, and road carts. They have an established reputation for doing the best kind of work and using the best material. Their sulkies are used by some of the best drivers, and their road carts are real beauties. Send to them for a free illustrated circular of the kinds of work they manufacture.

J. V. Stryker, of the Jerseyville Stock Farm, Jerseyville, Ills., has sold to P. V. Crist, Hamilton, Mo., the colt Sacramento sired by Cuyler, dam Yosemite by Mambrino Transport, son of Mambrino Patchen, second dam Augusta by Rysdick's Hambletonian, third dam Dolly Mills by Seely's American Star. Sacramento is a bay, strip in face, hind feet white, of good size, fine style, and gifted with speed. We are glad so fine a stallion has come to Missouri. Mr. Stryker has very fine trotting stock, and any one wanting anything in that line should visit his farm near Jerseyville.

I have a fine colt that got his foot fast between a rope and a tree and was cut into the bone; he has now a large lump on his ankle. Will you please tell me how to take it off. He is not lame with it; it is on the inside of ankle.

Sipe Springs, Tex. G. B. D.

REMARKS: About the only thing that now can be done is to use iodine ointment on the enlarged part. Iodine ointment can be obtained at any drug store.

North Missouri is beginning to boom in the breeding of fine horses, and there is no location in the United States better adapted to that business. The Chicago, St. Louis, and even the eastern markets are easily reached. There is moreover no better grass country than North Missouri, and horses can be cheaply and profitably raised on it.

There are many good horses in that section of the State, but none to compare with some that have lately gone there. H. D. Ayres & Son, the enterprising breeders of Shorthorn cattle, have determined to give some of their attention to the breeding of fine horses as well as fine cattle.

They have within a few months past taken to their farm at Breckenridge, Caldwell Co., Mo., the highly bred trotting stallion, *Ayres' Hambletonian*, a very choicely bred trotting stallion, whose get—if there is any merit in blood, as well as in the horse himself—ought to bring tens of thousands of dollars to the farmers of Caldwell County, who are enterprising enough to avail themselves of his services.

And then Mr. Ayres has right there, the stallion *Goldsmith*, a son of Rysdyk's Hambletonian—that great progenitor of trotters, and the only son of the old horse we believe in the State.

The advertisements of both these stallions will be found in our columns. They are worth perusing. The only way to have good horses is to breed to them. A few additional dollars to pay for the services of a high bred stallion, is a mere bagatelle to the additional price the horse will sell for, when ready for market. These stallions should have a large patronage for not only the stallions, but the enterprising owners deserve it.

Illinois Trotting Horse Breeders.

The Trotting Horse Breeders of Illinois have called a meeting at Peoria, Ill., on the 8th of April, inst. Its object is to promote the interest of the trotting horse breeders of that State, and probably to take into consideration the propriety of opening colt stakes to the breeders of that State. The call for the meeting is signed by John Warner, A. M. Studer, J. W. Schenck, D. Sapp, J. D. Speers, B. Crawley, R. R. Voris, Jas. Selby, and Chas. B. Allaire. We think the meeting will be a success. Such prominent horsemen as the following gentlemen ought to be there, viz: Chandler & Carter, and L. B. Morey, of Aledo; W. S. Frazer, Aurora; A. Armstrong, Beason; Eugene Churchill, Bryant; Wm. Babcock & Son, Bryant; Nat. Bruen, LaHarpe; M. H. McRoberts, Dixon; Mr. Caton, Joliet; Dr. Wm. Sheppard, Ottawa; Mat. S. Maloney, Belvidere; Wm. Shores, Monmouth; Samuel J. Fleming, Monmouth; Samuel J. Fleming, Effingham; W. H. Baird, Mt. Carroll; A. V. Brooking, MacComb; W. A Sanborn, Sterling; Silas Hurd, Odin; L. S. Rupert, D. H. Rounds, and Col. Jas. Freeman, of Bloomington; Wash Corbin, of Quincy; D. W. Brennerman & Bro., of Decatur; Daniel White, of Trivoli; A. G. Danforth, of Washington; J. B. Dodge, of Walnut; Dr. H. C. Barnard and W. A. Whitmore, of Charleston. And then there should go from Jerseyville the following enterprising breeders, viz: J. V. Stryker, T. F. Reiner, Geo. Voorhees, Jas. Gorman, Col. W. H. Fulkerson, N. E. Beaty, W. H. Christie, T. McReynolds, Ed. Cross, Chas. Frost, John H. Lamb, Judge O. P. Powell, Walter Cory, N. T. Kirby, and others, whose names we forget.

There is material enough to make a big meeting, and an interesting and profitable one. Let all the breeders turn out.

Oil Cake Meal for Stock.

I see that you recommend oil cake meal for colts and horses. About how much do you recommend to be given to each per day? L. A. S.

Give to weanling colts about half a pint mixed with bran or other food, night and morning. Grown horses may be allowed a pint, twice a day, or even double that quantity. It aids in keeping the stomach and bowels in a healthy condition, assists in the discharges of the bowels, and prevents gases forming and causing colic, and thus aids in keeping off disease. It keeps the coat of hair in a soft, glossy condition. It is a valuable stock food and should be better appreciated by American farmers.

The Morgan Horse.

COL. COLMAN: I have been keeping your request to give a description and history of the Morgan horse in view for a week, and the first spare time that offers, the great RURAL WORLD family shall know what my opinion of the Morgan is. My time, like your own is not always at my disposal, and I have too good an opinion of your readers to offer them any hurried or slip-shod work. The article is mapped out, and you shall have it at an early day. Possibly my theory of the origin of the Morgan horse may be regarded as unique. I have always regarded him as strongly tinctured with Arab blood, along with many other writers, but there is a more potent source for his intellectual or reasoning powers, in my opinion, which the RURAL WORLD shall announce originally.

Yours truly, M. T. GRATTAN.

Preston Stock Farm, Filmore Co., Minn.

Remarks: Although the above letter was not written for publication, we put it in type, as our readers are much interested in the subject. Mr. Grattan has much interest in Morgan horses, is owner of one of the best bred Morgan stallions living—Herod—record 2:26¾, and has given much attention to this family of horses. Mr. Grattan is one of the able writers in horse literature, being a regular correspondent of the *Breeders' Gazette* and other turf journals.

An Extensive Establishment.

—We have before us the catalogue of Ezra Stetson & Sons, Neponset, Ill., who are widely known as importers and breeders of Percheron and Clydesdale horses. Mr. Stetson is one of those who, like Mr. Walters, of Baltimore; Mr. Finklin, of Charlottesville, Va.; Mr. Slattery, of Onarga; Mr. Rogy, of Seward, Neb., and many others whom we might mention, have always opposed the use of the word Norman in connection with their imported French horses, and time is fast bringing the public generally to agree with these gentlemen. Dr. Stetson & Sons have on their ranch over two hundred head of horses and mares to select from. You will find recorded Percherons and recorded Clydesdales in about equal numbers to select from, and a reliable firm to deal with.—*Breeders' Gazette.*

The Glenview Stallions.

—It would be difficult, indeed, to find stallions possessing better blood lines than the trio at the Glenview Farm of J. C. McFerran, near Louisville. Themselves horses of marked individual merit, the question of their value as sires of trotters has already been decided in the affirmative by the performances of their get in races. Cuyler, who occupies the place of honor, comes of the right stock, being by Rysdyk's Hambletonian, dam Grey Rose, by Harris' Hambletonian, and although yet young in the stud has sired Day Dream, record 2:21¼ in the fifth heat of a hotly contested race; Algath, 2:23 at four years old; Elvira, 2:27 at three years old; Orient, 2:30 at four years old; Sanford Keith, 2:32½; St. Arnaud, 2:32¾ and Cricket, 2:33. His daughter, Lucy Cuyler owned by Mr. Robert Bonner, was driven a trial to wagon in 2:17¾. Nutwood, the second stallion in the place, is a trotter of merit, as his record of 2:18¾ proves, and with very limited opportunities in the stud has sired Manon, 2:22½ Felix, 2:25¼, and Dawn, 2:50—the fastest record ever made by a yearling in a race. Nutwood is bred as well as the best, being by Belmont, dam Miss Russell (dam of Maud S.) by Pilot Jr. Pancoast, by Woodford Mambrino (record 2:21¼, and sire of Abbotsford, 2:19¼,) out of Bicara (full sister to McCurdy's Hambletonian, 2:26¼) by Harold. And in addition to this he is a trotter himself, making a record last fall of 2:25¾, after a season in the stud. The brood-mares at Glenview are of the very best breed.—*Breeders' Gazette.*

Horse Notes.

—Ringbone in colts, says an exchange, comes from permitting the colt to stand on a wooden, concrete, brick, stone or other hard floor any time before attaining about eighteen months' age. Previous to this they should be kept on pasture of a dry soil during the summer, and if stabled in the winter, the floor should be dry, loose earth. If the soil here is clayey, then it ought to be covered several inches deep with sand, tanbark, sawdust or straw, or coarse hay, the two latter being cut up short in the straw cutter. If this is not done, the straw or hay gets piled up in heaps on some parts of the floor, and in others it is left bare, rendering it so uneven as to be uncomfortable and dangerous for the colts to stand on. If suffered to run out in a yard with open sheds, the soil should be loose and dry, and free from stones or coarse gravel. Thus treated, colts are pretty certain to grow up with well-shaped, sound, tough hoofs, pasterns, ankles and legs.

—A horse with the thrush should be kept indoors on a plank floor, furnished amply with dry straw bedding. All detached or decayed portion of the frog should be carefully trimmed off, so as not to start blood; then the hoofs should be trimmed and leveled, and shoes with corking, but without toe-piece, should be lightly tacked on. The feet should be cleansed with warm water morning and evening, and, after wiping them dry, a portion of dry calomel or finely powdered acetate of zinc should be introduced into the cleft of the frog by the aid of a small, flattened piece of wood, and the powder retained by inserting a little tow or oakum; or, pledgets of tow soaked in tar may be inserted daily, and kept in place by means of flattened pieces of wood across the frog, the ends of which are inserted between the shoe and the hoof. Patience and perseverance are required, as it sometimes takes months to cure bad cases of thrush.

The record of fast trotting in 1883 will convince the most skeptical that the cross between Old Mambrino Chief and Old Hambletonian is the surest and safest way to produce a trotting horse. There has been a great effort to prove that the Clays, the Pilots, and the Black Hawks were as successful in the stud, both as sires and dams, as any other; but the four flyers of this year, the "phenomenal trotters," are all of the same family. The dams of Phallas, with a record of 2:15¾; Wilson, 2:16; Majolica, 2:17; and Leontine with record of 2:22, were all daughters of Clark Chief, who was the best son of Old Mambrino Chief. The dam of the Nutting colt, by Fremont, on exhibition at fair last week, (and surely the fastest 2-year-old ever raised in this county) was by Waxy, who was also sired by Clark Chief, showing that wherever there has been an *out cross*, and the same strain of blood brought together again, it is almost as certain to produce strength, speed and endurance, as chemical affinities will produce the same results in the laboratory of the chemist.—*Spirit of the Turf.*

FITTING HARNESSES.—A correspondent of the *Farmers' Advocate* sensibly advises that when purchasing harness the team upon which it is to be used should be at the shop; especially is this necessary in order to get a perfect fitting collar. All farmers are not able to fit upon their horses; therefore it is of the first importance that the seller should be a competent judge, capable of fitting a collar upon any horse with the greatest possible comfort. A large number of horses annually are permanently injured by the want of a

proper fitting collar. Naturally a horse's shoulders are the same in strength, shape and toughness; therefore a collar should be of the same shape and firmness on both sides. But many of them are not, and this is the chief cause of sore shoulders so prevalent among work horses. It often happens that one side of a collar is stuffed firmer than the other; and it is sometimes the case that the leather on one side is thicker or harder than on the other. Such collars should never be brought out of the shop.

—Rheumatism is very common in horses and it arises from exposure to cold and rain, especially after being heated with exercise, or from washing with cold water while the animal is heated or perspiring, and in general from most of the causes which induce catarrh and influenza. It often attacks young horses who are severely worked, and old ones who have lived a life of coarse treatment and of hard labor. It is sometimes indicated by swelling and perceptible tenderness; but, in general, it shows itself by mere lameness, accompanied always with expression of acute pain, and sometimes with considerable degree of feverishness. Whenever lameness, after a careful examination, cannot be accounted for, or is found to go off after exercise and to return again, it may pretty certainly be pronounced rheumatism. It is, in all cases, distressing, in many obstinate, in some a kind of torturing palsy, and, in most, capable of great alleviation, and even of a real and permanent cure. The remedies for it are change of diet, diuretic medicines, stimulating applications, and somewhat warm and uniform temperature.

A correspondent of an exchange gives a few ideas that may be of value to those interested in breeding horses. He says: The shape of the foal takes more after the sire than the dam. Some few mares breed more to themselves than the horse, but, as a rule, most breed to the horse in regard to make and shape, and, therefore, if you were to put a number of mares to the same horse, and one mare to different horses in succession, the foals by the same horse would bear a greater resemblance to the sire, and, therefore, to each other, than the one mare's foals would bear to her in appearance, shape and outline. The size of the foal depends more on the size of the dam than the sire. In order, therefore, to secure full-sized animals it is more necessary to have a large, roomy mare than a large horse; while, on the other hand, in order to be more certain of obtaining a particular shape or outline, it is more important that the sire should be of the shape you wish to obtain than the dam. Or, to put it shorter, you ought to breed from mares which are the size you want and horses which are the shape you want.

—While it is not impossible it may be impracticable for the horsemen of this country to treat their horses in the same manner that the Arabians treat theirs, yet there are many lessons to be learned from the manner in which they handle their horses that it might, at least, be well to imitate. A writer in an exchange who evidently understands their methods, says: The Arabians never beat their horses; they never cut their tails; they treat them gently; they speak to them and seem to hold a discourse; they use them as friends; they never attempt to increase their speed by the whip, or spur them, but in cases of great necessity. They never fix them to a stake in the fields, but suffer them to pasture at large around their habitations; and they come running at the moment that they hear the sound of their master's voice. In consequence of such treatment these animals become docile and tractable in the highest degree. They resort at night to their tents, and lie down in the midst of the children, without ever hurting them in the slightest manner. The little boys and girls are often seen upon the body or neck of the mare, while the beasts continue inoffensive and harmless, permitting them to play with and caress them without injury.

—Cracked heels are one of the most tormenting ailments that beset the trainers of runners and trotters, especially the former. Trivial though it may seem, when there is a bad case the sufferer is incapable of showing its true form. Slight disarrangements of any of the functions are sufficient to place "the flyer" on a level with those which are pounds below, and the separation of the skin in that sensitive place is not so slight as many imagine. There are a hundred "sure cures." Every trainer has a favorite remedy, and it is safe to say that he has little faith in any. Easily managed when there is slow work, he is well aware that when the fast gallops are resumed it is long odds that there is a return of the trouble. Besides lessening the danger from mud adhering to the pastern, there is the further benefit of preventing evaporation. This will be sufficient in cases where there has been no cracking; in the latter it will be necessary to apply a linen bandage, put on loosely, with some kind of a cerate to induce healing. Twenty years ago glycerine was our favorite remedy. Now we are partial to the preparations from crude petroleum, vaseline, cosmoline, cuticura, any emolient in fact, that will soften the rigidity of the skin, which is always an accompaniment of cracked heels, and tend to the healing of the fissures.—*Breeder and Sportsman.*

—Daniel Lambert was foaled in 1858 and got by the noted trotting stallion, Ethan Allen, he by Hill's Vermont Black Hawk, he by Sherman, son of Justin Morgan. His dam, Fanny Cook, was by Abdallah, he by Mambrino, son of imported Messenger. His color is chestnut with some white in face and one white foot behind, also a light colored mane and tail bordering slightly on the flaxen order. He is a wonderfully intelligent, spirited animal, standing only about fifteen hands high, yet strong in every point, with a beauty of form, elegance of carriage and elasticity of step, that is seldom equalled in any animal. He never had an opportunity to distinguish himself much upon the turf, yet, with proper handling, would undoubtedly have been very speedy, as he proved himself capable of trotting a full mile in 2.36 in his three-year-old form. Probably no horse ever got a finer class of stylish, spirited gentlemen's roadsters than Lambert. Many of his sons and daughters that never set foot upon a track are used by gentlemen for private driving, and can easily down a 2.30 trotter upon the road. Not less than a dozen of such can go on a track and trot a full mile better than 2.30 any good day and track. A large proportion of his get are natural trotters so evenly balanced that they require neither weights nor boots. Fifteen of his get are from dams of Morgan descent, fourteen of which trace directly back through their sires to Vermont Black Hawk. The total number of heats won by these fourteen is 208, or an average of about fifteen, while the average of all these from dams without the Black Hawk strain is only about nine and one-half. Several of Lambert's sons are proving very successful in producing speedy trotters, among the best of which are Abraham, Aristos, Ben Franklin, Lambertus, Aurora and Addison Lambert, all of which were out of Black Hawk dams. Abraham has not less than four in the 2.30 list, three of which are from mares descended from Ethan Allen and H. B. Winship, one of the very best of the Lamberts, was from a mare possessing a large share of Black Hawk blood. Next to the Black Hawks, the mares of Young Columbus blood have proved the best for crossing with Lambert, four of his get in the 2.30 list being from dams of that stock. Although in his twenty-sixth year Lambert is still hearty, vigorous, and a sure foal getter. His terms during the past year were $500 by the season.

—The second place in the rank of successful trotting sires is occupied by Blue Bull, which is now represented by thirty-two sons and daughters, with trotting records below 2.30, as follows: Will Cody, 2.19¼; Silverton, 2.20¼; Zoe B., 2.20¼; Chance, 2.20¾; Richard, 2.21; Mamie, 2.21¾; Elsie Good, 2.22¾; Gladiator, 2.22½; Ethel, 2.23; Kate McCall, 2.23; Belle Wilson, 2.23¼; Lona Guffin, 2.23¾; Ina G., 2.24; Kate Hall, 2.24; Florence M., 2.25¼; Russell, 2.26; Blanche H., 2.26¼; Commander, 2.26¼; Mila C., 2.26½; Bertie, 2.27; Dom Pedro, 2.27; Molly Kistler, 2.27¾; Gen. Russ, 2.29¼; Kate Bennett, 2.29¼; Mattie H., 2.29½; Ed Wilder, 2.30; Ella Wilson, 2.30; Little Wonder, 2 30; May Bird, 2.30; Purity, 2:30, and James Halfpenny. Thirteen of the above won heats in 2.30 or better during the past season, five of which had never previously equalled that time. Two of these that were in the list at the beginning of the season lowered their records last year. The average time of the thirty-two is 2.25¼. The total number of heats won by the lot is 351, and seventy-eight of them during the past season. This brings the average number of heats to each 2 30 trotter about eleven. Blue Bull was foaled in 1858, and died July 11, 1880. It is not known at the present time that the blood lines which entered into the composition of this remarkably successful trotting sire contained a single strain of trotting blood, but no one who has tried to solve the breeding problem can doubt that he sprang originally from the best of stock. He proved himself possessed of greater individual merit than any other trotting sire that the world has yet produced. Could he have had the opportunity enjoyed by most of the popular trotting sires, his roll of honor would undoubtedly have been much larger than at present. Whether he imparted to his sons the power to transmit speed, is a problem not yet solved. His daughters, however, are proving successful brood mares, and will, without doubt, be in great demand by breeders. The pacing element is increasing in favor every year, and is likely to prove a potent factor in the future production of trotters.—*American Cultivator.*

A VERY SINGULAR AND EXCEPTIONAL CASE.

The following details of a case, is one of the exceptional cases which we meet with in our dispensation of Compound Oxygen, and one that illustrates in a very striking manner the subtle and deeply-searching and active power of this new agent.

"ST. CLOUD, WIS., January 16th, 1882.

"DRS. STARKEY & PALEN: Dear Sirs:—I believe it to be a duty I owe to sufferers from blood and skin diseases to make a brief statement of my case. About ten years ago I had several inflamed dark spots come on both of my ankles. These spots, when they first appeared were of a dark copper color, and much inflamed and rigid. They gradually grew larger and more troublesome, with always a sensation of numbness, and sometimes paroxysms of most intolerable itching. I had for several years previous to the appearance of these spots on my ankles been troubled with inflammatory rheumatism. My joints would be sometimes badly swollen and inflamed. I had much trouble and pain with my left ankle for the three or four months before commencing to use Compound Oxygen. The whole of the outside of my left foot and ankle resembled in appearance and color a large piece of liver. It was much swollen and as rigid as an iceberg, with nine or ten very painful dry sores. The central one was about one inch in diameter, and most excruciatingly painful. I showed it to several knowing ones, who pronounced it a cancer. The effects of the Compound Oxygen were truly wonderful. It worked like a charm. In a few days after commencing its use, my feet began to bleach out; the lumps dissolved; the skin and flesh of my feet soon became soft and white; the sores became less painful, and soon began to heal. The sores are now all well, and my feet and ankles are as good as new. In fact, I have got a new pair of legs; for all of which I am indebted to Compound Oxygen. Respectfully Yours,

H. SPARKS.

The effect of Compound Oxygen in this case gives a striking proof of the law governing its action. It had no specific relation to the disease from which the patient was suffering, and did not act directly upon the affected parts, but, instead, infused new vigor into all the nervous centres, quickened all the life-forces, and restored to healthier activity every organic form in the body, and the result came as a natural and orderly sequence. The case is exceptional only in the character of the disease, not in its cure by Compound Oxygen.

Our *Treatise on Compound Oxygen*, containing a history of the discovery and mode of action of this remarkable curative agent, and a large record of surprising cures in Consumption, Catarrh, Neuralgia, Bronchitis, Asthma, etc., and a wide range of chronic diseases will be sent free. Address DRS. STARKEY & PALEN, 1109 and 1111 Girard St., Philadelphia.

BREEDERS' DIRECTORY.

HEREFORD AND ABERDEEN-ANGUS CATTLE—Gudgell & Simpson, importers and breeders, Independence, Mo. An inspection of their herds is invited.

SHORTHORN CATTLE.—J. F. Finley, Breckenridge, Mo., breeder of Shorthorn Cattle and Berkshire Swine. Imported Kirklevington Lad at head of herd. Stock for sale at all times.

KANSAS SHORTHORN CATTLE—Robert Patton, M. D., Hamlin, Kansas, breeder of Shorthorn Cattle of the best families. Stock for sale. Inspection invited.

JAMES H. PARKER, Columbia, Mo., breeder of Shorthorn cattle, Southdown and Cotswold sheep. Grand Duke of Sharon 29739 at head of herd. Prices reasonable.

ANGUS AND GALLOWAY CATTLE—W. H. and A. Leonard, Mount Leonard, Mo., importers and breeders of Angus and Galloway cattle and Spanish and native Jacks.

CHARLES E. LEONARD, proprietor Ravenswood herd of Shorthorn Cattle, imported Spanish Jacks and Jennets and Merino Sheep, Bell Air, Cooper Co., Mo., or Princeton, Mo. P. R. R.

HIGH CLASS BATES CATTLE, bred and for sale by M. W. Anderson, Independence, Mo. Craggs, Barringtons, Harts, Places Acombs, &c. Kirklevington Duke 2d 32980 at head of herd.

WILL R. & JUNIOR K. KING, Peabody, Marshall, Mo., breeders of Short-horn cattle Viscount Oxford 7th, 49489, Imp., and Grand Duke of Clark, Jr., head the herd.

W. T. HEARNE, Lee's Summit, Mo., on Mo. Pacific R. R., 24 miles east of Kansas City, breeder of pure bred Shorthorn Cattle of the highest type. Herd numbers 100 head. Farm adjoins the town.

JOHN MORRIS, Chillicothe, Mo., breeder of Short-horn cattle, Berkshire swine, Cotswold and Merino sheep. Stock for sale at reasonable prices. Write.

HOLSTEIN CATTLE. GUS. HEAD, Alton Junction, Ill., breeder of Holstein Cattle, Poland China Hogs, Bronze Turkeys, Langshan and Plymouth Rock Fowls and Collie Dogs. Eggs and Chicks in season.

DR. ABRAM NEFF, Arrow Rock, Saline county, Mo., breeder of Short-horn cattle. Ornanthe Duke at head of herd. Correspondence solicited.

G. C. WRIGHT, Pacific, Mo., or 906 Pine St., St. Louis, Breeder of Jersey Cattle, Berkshire, Jersey Red and Victoria Hogs, Shepherd Dogs, Plymouth Rock, Georgia Shawl Neck Chickens, Toulouse, China and White Swan Geese, Pekin Ducks, White Holland and Bronze Turkey's Eggs for hatching.

T. C. CAMPBELL, Breeder of Holstein Cattle, Manchester, St. Louis Co., Mo. Railroad station, Barrett's, Mo. Pac. Ry. Inspection of stock invited.

FOR SALE. A. J. C. C. BULL CALVES, tracing to such noted sires as Signal 1170, Rex 1330, and the Great Mercury 432, JAS. G. CREVELING, East St. Louis, Ill.

JERSEY CATTLE, highly and fashionably bred and the best butter families. Bulls fit for service and bull calves for sale at reasonable prices. Premium herd St. Louis Fair 1883. Seven first premiums, including aged Cow, three-year old Cow, two-year old Bull, Sweepstakes on Cows, Herd premiums, etc. Animals properly shipped and delivered at depot in St. Louis. H. W. Douglass, Pevely, Jefferson Co. Mo.

DR. H. B. BUTTS, Louisiana, Pike county, Mo., breeder of Jersey cattle. Fifty head to select from. Send for catalogue. Also Bremen geese and Plymouth Rock fowls.

H. V. P. BLOCK, Aberdeen Farm, Pike Co., Mo., breeder of pure and high-bred Percherons by imported Napoleon Bonaparte and Bismarck, Champion Almack Trotters, pure Jerseys, grade Jerseys (milk cows), white Yorkshire and Berkshire pigs. Send for catalogue. Address Prairiesville or Louisiana, Mo.

SETH WARD & SON, Westport, Mo., breeders of the best families—Airdrie Duchesses, Fletchers, Barringtons, Kirklevingtons, Wild Eyes, Roan Duchesses, Hudson Duchesses, Constances, Minas, Hilpas, Darlingtons, Craggs, Rose of Sharons, Vellums, Mazurkas, Miss Wileys, Barmpton Roses, Young Marys. Oxford of Vinewood 3d, 33427, at head of herd. Young stock for sale

JACKS.—I have for sale Jacks, Hogs, and grade and thoroughbred Shorthorn bulls. W. H. BASS, Columbia, Mo.

JERSEY RED HOGS bred and for sale by Rozzelle & Peck, Breckenridge, Caldwell County, Mo. Young pigs for sale.

J. BELL & SON, Summerville, Texas county, Mo., breeders of pure Spanish Merino sheep. Choice ewes and rams at wholesale and retail.

G. B. BOTHWELL, Breckenridge, Mo., Breeder of Spanish Merino Sheep. His six best stock rams shear from 28 to 33 lbs. Stock for sale.

CHESTER WHITE HOGS. H. W. Tonkins, Fenton, St. Louis County, Mo., breeder of improved Chester White pigs. Stock for sale at reasonable prices. Ship from St. Louis.

BERKSHIRES—N. H. Gentry, Sedalia, Mo., breeder of Berkshire hogs, Merino sheep and high-grade Short-horn cattle.

MERINO SHEEP—H. V. Pugsley, Plattsburg, Clinton county, Mo., breeder of registered Merino sheep. Stubby 440 stands at head of flock. Call or write.

R. C. PEW, Prairieville, Pike county, Mo., importer and breeder of Cotswold and Shropshire sheep. Ewes and rams of all ages for sale. Correspondence solicited.

P. S. ALEXANDER, Lone Jack, Mo., importer and breeder of Cotswold sheep. Satisfac on guaranteed. Call or write.

J. D. WASHINGTON, West Plains, Missouri, breeder and importer of Essex hogs, Merino Sheep and Plymouth Rock Chickens. Circulars free.

SAMUEL JEWETT, Independence, Mo., importer and breeder of registered American Merino sheep. Satisfaction guaranteed to purchasers.

T. C. LIPPITT, Shenandoah, Iowa, breeder of and dealer in American Merino sheep. Size, constitution and amount of cleansed wool a specialty. Stock rams for sale.

I. H. SHIMER, Hilisboro, Ills., Breeder of pure Victoria swine. Satisfaction guaranteed. Inquiries promptly answered.

D. W. McQUITTY, breeder of Merino sheep, Berkshire swine and high class Poultry, Hughesville, Pettis Co., Mo. Has 400 rams ready for this year's service.

MERINO SHEEP and Light Brahma fowls, all of the best strains. R. T. McCulley & Bro., Lee's Summit, Mo. Prices reasonable.

J. W. BLACKFORD, Bonaparte, Iowa, Breeder and Shipper of Pure, Recorded Poland China Swine of best strains. Correspondence invited. Prices reasonable. Satisfaction guaranteed.

GEORGE L. MENGER, Palmyra, Mo., Breeder of pure bred Poland-China Swine, all recorded in the A. P. C. Record. Special rates by express. Also, Breeder of pure bred Plymouth Rock Chickens. Eggs in season, $1.50 per setting of 13. Write or call.

CHESTER WHITE and BERKSHIRE HOGS, of the best breeds, bred and for sale by HOLT BROS., Arlington, Ky.

DUROC, or JERSEY RED HOGS, and Large English Berkshire Plymouth Rock Fowls, all of the very best breed, for sale by W. LEONARD REID, Sandy Bridge, Jefferson Co., Mo. N.B. A fine lot of very early Pigs, now. Eggs for Hatching, $1.50 per setting (15). A few fine Cockerels, $2.00 each, delivered in South St. Louis. Write.

DUROC, OR JERSEY RED SWINE, bred and for sale by Dr. G. H. Donaldson, Breckenridge, Mo. For history and price-list address as above.

MERINO SHEEP, Berkshire Hogs and 14 varieties of high-class Poultry, all of the best strains. HARRY MCCULLOUGH, Fayette, Mo

E. J. FILE, Hillsboro, Ill., breeder of Shropshire Sheep, Suffolk Swine and Plymouth Rock Chickens. Sheep, Pigs and Eggs for present delivery.

POLAND CHINA and BERKSHIRE HOGS bred and shipped by H. H. Allen, Sedalia, Mo. Also, pure bred Plymouth Rock Chickens.

PLYMOUTH ROCKS of the best strains, Largest flock in St. Louis County. Eggs $2 for 15, carefully packed. Fowls for sale at reasonable prices. Write. Mrs. F. M. Dyson. Baden, St. Louis

CHAS. GALLE, Columbia, Mo., Breeder and Shipper of high-class Poultry, Pekin Ducks, Toulouse Geese. Eggs shipped in Galle's Spring-bottom basket; setting, $2.00.

MRS. J. J. BRICE, Breeder of Mammoth Bronze Turkeys, P. Rock Chickens and Brown Leghorn and Toulouse Geese. MRS. J. J. BRICE, Shackelford, Mo.

LINN COUNTY POULTRY ASSOCIATION breeders of high class Plymouth Rock, Langshan, Partridge Cochin, Wyandott and Houdan fowls, B. B. R. Game and Bronze Turkeys, Eggs and Chicks in season. Prices low; stock pure. Correspondence solicited. Chester White Pigs for sale. Ed. H. Nortoni, Sec'y, Linneus, Mo.

WHITE BRAHMA EGGS, for Setting from high-class birds. $2.00 for 13. MRS. IDA HOLLAND, Melville, Madison Co., Ill.

HIGH CLASS POULTRY. Plymouth Rocks, Black Javas, Partridge Cochins, Brown and White Leghorns, S. S. Hamburgs. Bronze and White Holland Turkeys and Pekin Ducks Stock for sale. Eggs in season.
MISS ALICE FISHER, Hanny City, Peoria County, Ill.

PURE BRED REGISTERED YORKSHIRE HOGS, Holstein Cattle, Bronze Turkeys and L. Brahma Chickens. J. P. Vissering, Melville, Madison Co., Ill. Artichokes for sale

J. BAKER SAPP, Columbia, Mo., breeds large English Berkshire Swine, Merino Sheep. Choice Plymouth Rock Fowls and Pekin Ducks. Catalogue free.

POLAND China SWINE, pure breed. Liberal reductions to first purchasers in each county. Photographs of breeds sent free upon application. Address us before purchasing elsewhere. H. H. WALLS & CO., Bedford, Lawrence co. Ind.

POLAND-CHINA HOGS and Pigs and PLYMOUTH ROCK Poultry of pure breed and fine quality. Fair prices and prompt attention to customers. H. C. MINTER, Keytesville, Chariton Co., Mo.

FOR BERKSHIRE PIGS of the best approved English and American bred families, Windsor Castle, Cirencester Sallie, Manchester Lass, Stewart's Cantilena, and Baily's Exquisite. Or, for Light Brahma Fowls, of high quality, address SPRINGER BROS., at "HAW HILL," Springfield, Ill.

L. W. ASHBY, Calhone, Mo. Breeder Pure English Berkshires. Write.

St. Clair County, Ills., Breeders.

HOLSTEIN CATTLE, Shropshire Sheep bred and imported by JOS. E. MILLER, Bellville, Ill.

SOUTHDOWN SHEEP, Berkshire Pigs and High Grade Shorthorns. J. M. SCOTT, Breeder, Belleville, Ills,

JERSEY CATTLE, Southdown Sheep and Plymouth Rock Fowls. JOSEPH P. SMITH, Breeder, Freeburg, Ills.

SHORT-HORN CATTLE, Percheron Horses and Berkshire Pigs. WM. J. MILLER, Breeder, Belleville, Ills

PLYMOUTH ROCK FOWLS and Eggs and all kinds of native and imported Farm and Garden Seeds. L. G. WENIGE, Belleville, Illinois.

GUERNSEY CATTLE, Oxfordshire Sheep, Plymouth Rock Fowls, Pekin Ducks, White Holland Turkeys, all pure bred and low price. Henry C. Eckert, Belleville, Ill.

EGGS FOR HATCHING Partridge Cochins, Brown and White Leghorns, at $1.50 per setting of thirteen. Also, Pekin Duck and Bronze Turkey eggs in season. Pekin Ducks, $1.50 per setting of nine; Address C. T. STOOKEY, Freeburg, Ill.

BREEDER OF HIGH CLASS POULTRY. Plymouth Rocks, (Pitkin strain), Houdan's (White strain) Eggs $2 per 13. JAMES G. MCROBERTS, South Cabanne St., near McRee Ave., St. Louis, Mo.

Trotting Stallions.

Ayres' Hambletonian.

Bred by and the property of H. D. Ayres & Son, Breckenridge, Mo. Brown horse with star, 16¼ hands high, fine style and action; foaled 1881, by VOLUNTEER GOLDSMITH, (by Goldsmith, dam Volunteer Maid, by Volunteer, son of Rysdyk's Hambletonian.) First dam, Fredonia, by Pacing Abdallah, (by Alexander's Abdallah, sire of Goldsmith Maid 2:14.) Second dam, Jennie, by John Dillard, (sire of dam of Eric 2:28¾, and Phil Thompson, three-year old record, 2:21.) Third dam, June, by Belle Air, (Thoroughbred) Fourth dam, Copper Bottom, very fast pacer. Will serve twenty approved mares at "Stockplace," at $20, each to insure the mare with foal. He is the premium horse wherever shown.

H. D. AYRES & SON.

Breckenridge, Mo.

GOLDSMITH

Property of Alex. McClintock, Millersburg, Ky., and H. D. Ayres, Breckinridge, Mo. Brown horse, 16 hands high; bred by E. Hulse, Washington, New York. By RYSDYK'S HAMBLETONIAN, dam Lady Hulse, by imported Trustee, (Thoroughbred.) Will serve a limited number of approved mares, season of 1884, at "Stockplace," 1¼ miles southeast of Breckenridge, Caldwell county, Missouri, at the "one price" of $25 to insure a mare in foal; money due when the facts are ascertained or the mare parted with. GOLDSMITH was kept mainly for a driving horse, and served but few mares until brought to Kentucky in 1881. His colts are uniformly large, with good bone, and show great trotting action. GOLDSMITH is the only son of the "Hero of Chester" in the State of Missouri.

ALEX McCLINTOCK,
H. D. AYRES.

Breckenridge, Mo.

—THE—
STANDARD BRED
FAST TROTTING STALLION,
MONITOR.

Stands at the stables of the Colman Nursery Co., on the Olive Street Road, five miles from the St. Louis Court House. TERMS: $25 the season, in advance. Mares not proving in foal may be returned free next year.

Monitor is not only a horse of great power, having abundant bone and muscle, but his temper and disposition are so perfect that any child can use him. He can be worked in the Sulky or Plow without fretting. He is so level-headed that he won at the St. Louis Fair Ground Matinees last Summer, six races without showing the least excitement. He won as a three-year-old, a two thousand dollar match race, sixty days after the first harness was put on him, over C. L. Hunt's Cash Boy. He is a natural trotter and never makes a mistake. He is duly Registered as Standard Bred, in National Trotting Horse Breeder's Association.

PEDIGREE, ETC.

MONITOR (1327) foaled 1877, color black, 16 hands high, by Merchant (599), he by Alexander's Belmont (64), both their dams by Mambrino Chief (11); dam Trojana by Trojan (312) he by Flying Cloud (134), he by Vt. Black Hawk (5), Flying Cloud's dam by Andrew Jackson (4). Trojan's dam by Abdallah (1.) the sire of Rysdyk's Hambletonian, [10.] He is descended from the best trotting families on the side of both sire and dam. Pasturage for mares from a distance $1.50 per week. Address C. D. COLMAN, RURAL WORLD OFFICE, 600 Olive Street, St. Louis.

THE TROTTING STALLION,
WM. L. HULL,

Will make the season of 1884, at the FRUIN FARM, formerly called the Stevens' farm, 3 miles from MEADVILDE, a station on the H. & St. Joe R. R., Linn Co., Mo.

WM. L. HULL is a black horse, 16 hands high, a fast trotter, and was sired by the celebrated MAMBRINO PATCHEN, full sister to Lady Thorn, with a record of 2:18 1-4. He was sired by Mambrino Chief and his dam was Lady Thorn's dam, by Gano, son of American Eclipse.

The dam of Wm. L. Hull was the well-known trotting mare DIXIE, full brother to Taekey, both sired by the great sire of trotters, Pilot Jr. The dam of these mares was by Bellfounder. In the trotting stallion, Hull, the blood of the three greatest families of trotters is united; viz: Mambrino Chief, Pilot Jr., and Bellfounder. No trotting stallion in America is better, or more fashionably bred. Terms: $25 the season. Mares not proving in foal can be returned free next year. Pasturage on very reasonable terms. Address, R. J. FRUIN, Meadville, Linn Co., Mo.

THIRD ANNUAL JOINT SALE
—OF—
CHOICE TROTTERS!
—BY—
McFERRAN & VEECH.

THE THIRD ANNUAL JOINT SALE of the produce of the two well-known Kentucky breeding Farms, Indian Hill and Glenview, will be held at Glenview, the farm of J.C. McFerran, six miles east of Louisville, Ky., and one mile from Linden Station, on the Cincinnati Short Line Railroad, on

WEDNESDAY, MAY 7th.

The sale will embrace 50 head of Colts and Fillies, including **DAY DREAM**, foaled in 1879, with a four-year old record of **2:21 3-4** a fifth heat; **FEMME SOLE**, foaled in 1881, 2-year-old, half-mile trial in **1:11 1-4.**

The colts and fillies are by Pancoast (record 2:25 ¾), Cuyler (sire of Algath, 2:23), DAY DREAM, (2:21 3-4 both at 4 years old), and Elvira, three years old (record 2:27), Princeps (sire of Trinket, 2:14,) Hettie Pearl (2:27), Romance (2:29 1-4) and Farce (2:26½), and Geo. Wilkes (sire of 26 trotters in 2:30 and better, out of the dams of Day Dream, Algath, Orient, Romance and Farce and others equally well bred.)

There are two out of mares by Rysdyk's Hambletonian, seven out of mares by Volunteer, one out of mare by George Wilkes, one out of mare by Alexander's Abdallah, one out of Messenger Duroc mare, four out of Wolford Mambrino mares, two out of Belmont mares, three out of Mambrino Patchen mares, one out of Harold mare, and one of a Clark Cihef mare.

The sale will be absolute, without any reserve bid or any by-bidder in any form on any animal.

PUBLIC SALE.

W. H. WILSON'S Third Annual

Sale of High Bred Trotting Stock
—AT—
Abdallah Park, Monday April 16, 1884.

The get of his developed Stallions, Indianapolis 2:21; Jubilee Lambert, 2:25; Ravenswood, 2:26. Also the get of Smuggler, 2:15¼; Hambrino, 2:21¼; Hambletonian Mambrino, 2:21¼, and other producing sires and well bred Stallions. Catalogues can be had on application to W. H. WILSON, Abdallah Park, Cynthiana, Ky.

JERSEYVILLE STOCK FARMS.

Trotting Bred Horses

STALLIONS IN USE.

YOUNG HAROLD 1823, got by Harold (sire of Maud S., 2:10 1-4) dam by Almont (sire of Aldine, 2:15 1-2 to pole). Service fee, $50 to insure.

EXILE 1143, got by August Belmont 366 (sire of Don Cossack, 2:28), dam by Mambrino Patchen 58 (sire of London, 2:20). Service fee $25 to insure.

CLAY CUYLER 1707, got by Cuyler 100 (sire of Day Dream, 2:22 1-2 at four years), dam by American Clay (sire of Maggie Briggs, 2:27). Service fee $25 to insure.

The BROOD MARES are by the following sires: Harold, Cuyler, Princeps, Pancoast (2:25 1-4), Albion, Woodford Mambrino (2:21 1-2), Alexander's Norman, Woodford Abdallah, Kentucky Rocket, Ben Patchen, Blood Chief, and Clark Chief, Jr.

Young Stock, Matched Pairs, and good Driving Horses for sale at all times.

Stock shown any day except Sunday.

Good box stalls and pasture at reasonable rates for mares left for service.

Also, RED HOGS for sale.

Call on, or address **J. V. STRYKER,** Jerseyville, Ill.

(40 miles from St. Louis, on C. & A. R. R.)

FRESH MILCH COW FOR SALE.

A three-quarters bred Jersey Milch cow for sale. She dropped calf February 1st, has been again bred to a thorough bred Jersey bull. Is kind, gentle, well broken, and gives about 3¾ gallons of rich milk per day and will do better on grass. Is without known fault and will be delivered on cars in St. Louis for $100.
Address, COLMAN'S RURAL WORLD.
St. Louis, Mo.

EZRA STETSON, M.D., & SONS,
IMPORTERS OF
Percheron AND Clydesdale Horses.

Catalogues sent on application.
NEPONSET, BUREAU CO., ILL.

PUBLIC SALE
—OF—
HORSES.
At MT. STERLING, KY.

First Annual Sale at this place of 100 to 150 head of Horses, Mares and Geldings, to take place the 11th and 12th days of April, 1884, consisting of Trotters, Roadsters, Saddlers. Catalogues will be out the latter part of March.

WHITNEY & FESLER,
Mt. Sterling, Ky.

SPRING SALES.

KENTUCKY
SHORTHORNS.

APRIL 15, 16, 17, 1884,
AT DEXTER PARK, CHICAGO, ILL.

J. M. BIGSTAFF, Mt. Sterling, Ky.,

Will sell on April 15th, 1884, at Dexter Park, Chicago, Ill., from the Springfield Herd, 80 shorthorns, including two pure Bates bulls, one Place bull—the highest bred one we know of—Lady Bickerstaffs, Roan Duchesses Blooms, Rosabellas, Rose of Sharons, of the Renick Branch, Marys, Cowslips, Galateas, etc, topped by pure Bates, Duke and Oxford sires.

J. S. BERRY, of Sharpsburg, Ky.,

Will sell on the 15th day of April, 1884, Kirklevingtons, Roan Duchesses, Cypresses, Marys, Goodnesses, Filigrees, Rose of Sharons Amelias, Myrtles, etc. Among them will be a fine Kirklevington bull out of imp. Kirklevington Princess 2d, sired by the Bates bull 8th Duke of Vinewood, a show bull.

JAMES CHORN, of Thomson, Ky.,

Will sell on April 16th, 1884, at Dexter Park, Chicago, Ill., about 60 Shorthorns, of the following families: Craggs, Fletchers, Gem-Duchesses, Oxford-Cypresses, Bell Marions, Young Marps, Phylisses, Harriets, White Roses, Rosemarys, etc. The pure Bates bull Duke of Cornwall, will be idcluded in the sale.

HON. A. W. BASCOM, Owingsville, Ky.,

Will sell about 50 head of Shorthorns, from the Slate Valley Herd, at the same place, on April 17, 1884, of the following families: Young Marys, Josephines, Young Physillises, Gems, Vellums, Cowslips, Donna Marias, etc. The pure Bates Fletcher Duke of Willmont and 11th Duke of Kirklevington will be included in .he sale, together with a nice lot of young bulls of the above mentioned families.

For catalogue of either sale, apply to
J. M. BIGSTAFF,
Mt. Sterling, Ky

PUBLIC SALE
—OF—
POLLED ABERDEEN--ANGUS
AND
SHORT-HORN CATTLE.

We will on April 15, 16 and 17, at Kansas City Mo., offer at public sale, 124 head of Aberdeen-Angus cattle, 42 bulls and 82 females, and 16 Short-Horns; also 17 Galloways (the property of Geo. Whitfield.) These cattle are mostly imported and all high-bred cattle, representing the best strains of their respective breeds. Catalogues now ready. Address as below.
GEO. WHITFIELD, GEARY BROS.,
Model Farm, Bli Bro Stock Farm,
Rougemont, P. O., Can. London, Can.

DR. W. A. PRATT,
IMPORTER AND BREEDER OF

HOLSTEIN CATTLE.
100 Head on hand Oct. 1st.
DR. W. A. PRATT, Elgin, Ill.

ELMWOOD JERSEY HERD.
BUTTER THE STANDARD.

The animals comprising the foundation of the Elmwood Herd of Jerseys were selected many years ago solely for their butter qualities.

The long list of tested cows, with their grand butter records, that now comprise the Elmwood Herd or have been sold therefrom, is conclusive proof that no mistake was made in buying the best obtainable females and breeding them to the best of bulls. An examination of the pedigrees and the large butter records of the animals will convince parties familiar with the most noted butter strains that the bulls and cows in this herd are entitled to rank among the best representatives of the breed. An inspection will, we are confident, prove them as attractive in appearance as their unmistakable indications of quality would warrant.

Royalist III, 4500 stands at the head of the Elmwood Herd, and when the unsurpassed prize record of his ancestors for generations, and the average weekly butter record of his dam, imported Nelly 6456, and his sire's dam, Regina 32, I. H. B., are considered, Royalist III. 4500 is the peer of any Jersey bull. For further particulars address
CHARLES F. MILLS, Springfield, Ills.

JERSEY CATTLE.

I have one of the largest herds in the country composed of the choicest and most fashionable strains, all registered in the A. J. C. C. Herd Register. Young bulls cheap. Yorkshire pigs. R. R. FOSTER, St. Louis, Mo.

Jersey Cattle — Shetland Ponies — All ages. Both sexes. Best families. All colors.
THOS. T. TURNER,
706 Pine St., St. Louis, Mo.

Hostein Catte. J. A VANCE, Troy, Ills. breeder of Holstein Cattle. Imported and premium stock on hand Correspondence solicited

GREAT CLOSING-OUT SALE
—OF—
SHORT-HORN
CATTLE,
Of the Late L. PALMER,
WILL BE HELD AT
Dexter Park, Chicago
TUESDAY, APRIL 22.

AT the above time and place we will sell the ENTIRE HERD, which numbers about 65 head—17 bulls and 48 cows and heifers. Among the bulls to be sold is the grand show bull, **5th Duke of Acklam 41734**, A. H. B., the renowned sweepstakes winner at St. Louis and Kansas City and other fairs in 1882: **Commander 41637**, one of the best bred Cruickshank bulls in America, and the fine yearling Cruickshank bull **Orange Boy.**

The cows represent such noted families as **Cruickshank, Young Mary, Rose of Sharon, Josephine, Adelaide, Lady Caroline,** and other popular families. All of the cows and heifers that are old enough are bred to one of the above bulls, or have calves from them by their side.

Catalogues ready March 1st, and will be sent on application to F. C. HARRIS, Manager, Sturgeon, Mo.

MRS. M. A. PALMER and S. C. PALMER,
COL. L. P. MUIR, Auctioneer.
Administrators.

HOLSTEIN CATTLE

1st Prize Herd at N. Y. State Fair, 1879, 1881, 1882 & 1883.

Largest Herd, Best Quality, Most Noted Families.

At the head of our herd are the four best Milk Bulls living.

We now offer for sale the best bred lot of young Bulls ever collected in one herd, as their pedigrees show, and all backed by wonderful records.

FINE CLYDESDALE and HAMBLETONIAN STALLIONS at LOW FIGURES.

Catalogues on application. Correspondence and personal inspection solicited.

SMITHS & POWELL,
Lakeside Stock Farm, SYRACUSE, N. Y
Mention you saw this ad't in RURAL WORLD

BERKSHIRES.

I am selling choice 90-day Pigs at greatly reduced rates. Must have room for spring litters. Also, a few **Sows** and **Grown Boars.**

Short-Horn Calves,

Bulls and Heifers, of fashionable colors and pedigree, coupled with individual merit, for sale at reasonable figures. Send in your orders and get choice stock while they are offered, low down.
CHAS. G. McHATTON, Fulton, Mo.

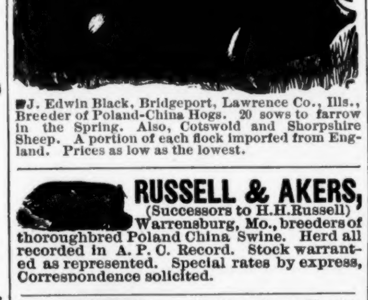
POLAND - CHINAS!
A. C. MOORE & SONS.

THE BEST HOG IN THE WORLD.

THOROUGHBRED POLAND-CHINAS.

AS PRODUCED AND BRED BY
A. C. MOORE & SONS, CANTON, ILLS.
Pig Pen Notes.

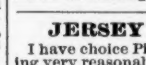
PURE-BRED REGISTERD
Poland China Hogs
For sale by DAVID A. WATTS,
Box 222, Sumner, Lawrence Co., Ill.
Write for prices. Inquiries promptly answered.



J. Edwin Black, Bridgeport, Lawrence Co., Ills., Breeder of Poland-China Hogs. 20 sows to farrow in the Spring. Also, Cotswold and Shorpshire Sheep. A portion of each flock imported from England. Prices as low as the lowest.

RUSSELL & AKERS,
(Successors to H. H. Russell)
Warrensburg, Mo., breeders of thoroughbred Poland China Swine. Herd all recorded in A. P. C. Record. Stock warranted as represented. Special rates by express, Correspondence solicited.

Premium Chester White, Berkshire and Poland China **Pigs** and **fine Setter Dogs**, Scotch Collies and Fox Hounds, bred by ALEX. PEOPLES, West Chester, Chester Co., Pa. Send stamp for circular and price list.



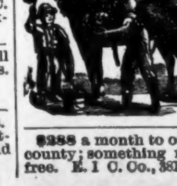
JERSEY RED, CHESTER White, Berkshire, Yorkshire and Poland China Pigs; Cotswold, Southdown and Oxford-down, Sheep, Scotch Colley Dogs, and Fancy Poultry of choicest stock, bred and for sale by W. ATLEE BURPEE & Co., Philadelphia, Pa. Illustrated Catalogue mailed free.

JERSEY RED SWINE.

I have choice Pigs on hand which I am selling very reasonable. Also taking orders for pigs to be shipped after a while. My stock all pedigreed Address J. N. INGRAM, Perry, Ills.

FOR SALE.

A Berkshire Sow, 3 years old. Eligible to Record. Bred by W. H. Rollins, Manhattan, Kas. Address **Thomas H. Larkin**, Baden, Mo



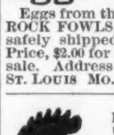
STEWART'S HEALING POWDER.

SOLD BY HARNESS AND DRUG STORES. Warranted to cure all open **SORES** on ANIMALS from any cause

$288 a month to one general agent in each county; something new; rare chance; outfit free. E. I. C. Co., 381 Canal Street N. Y.

Eggs for Hatching.

Eggs from the best strains of PLYMOUTH ROCK FOWLS, packed with care, so as to be safely shipped to all parts of the country. Price, $2.00 for 13. Plymouth Rock fowls for sale. Address COLMAN'S RURAL WORLD, ST. LOUIS Mo.



Thoroughbred Plymouth Rock, Light Brahmas, Buff, White and Partridge Cochin's eggs, $2 50 per 13.

Special.—Pure Essex Plymouth Rocks mated by Felch or Hawkings Strain mated by himself, $5 per 13 eggs. A. J. MANNY, 819 S. Third St., St. Louis, Mo.

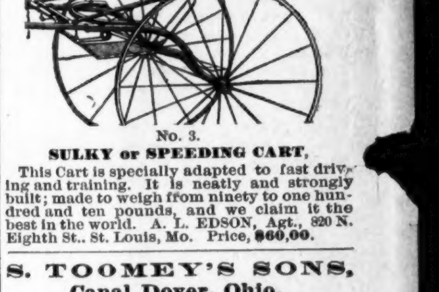
POULTRY, G. W. Pleasants, Wright City, Mo., breeds choice L. Brahmas, P. Cochins, P. Rocks, W. Leghorns, Aylesbury Ducks, etc. Established 1871. Write for circular.

Eggs For Hatching.

From High-Class Plymouth Rocks, Black Cochins, Imperial Pekin Ducks, and White Holland Turkeys.

I breed some of the finest fowls in America. Price of eggs for hatching down t[illegible]. Price List sent to all free. Address, THOMAS J. WARD, St. Mary's, Vigo Co., Indiana.

RUSHVILLE ROAD CARTS.



No. 3.
SULKY or SPEEDING CART,

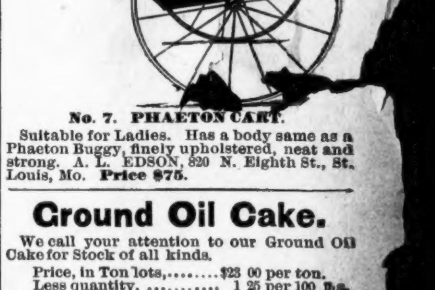
This Cart is specially adapted to fast driving and training. It is neatly and strongly built; made to weigh from ninety to one hundred and ten pounds, and we claim it the best in the world. A. L. EDSON, Agt., 820 N. Eighth St., St. Louis, Mo. Price, $60,00.

S. TOOMEY'S SONS,
Canal Dover, Ohio.
—Manufacturers of— ESTABLISHED 1854

Carriages, ROAD and SPEED WAGONS.
Sulkies, Speed Pole Sulkies, Road Carts and HORSEMEN'S **Pole Carts.**
Neiswanger Bros., KANSAS CITY, MO., Western Agts.

Old Style Improved SULKY. Price $100.00. Boxing & Shipp'ng $4.

RUSHVILLE ROAD CARTS.



No. 7. PHAETON CART.

Suitable for Ladies. Has a body same as a Phaeton Buggy, finely upholstered, neat and strong. A. L. EDSON, 820 N. Eighth St., St. Louis, Mo. **Price $75.**

Ground Oil Cake.

We call your attention to our Ground Oil Cake for Stock of all kinds.

Price, in Ton lots,.........$23 00 per ton.
Less quantity, ... 1 25 per 100 lbs.

No charge for sacks. Send for Circulars.
WOODMAN LINSEED OIL WORKS, Omaha, Neb.

For sale by Barstow & Whitelaw, St. Louis, in lots of 500 pounds or more, at $30 per ton.

GOSSAMER GARMENTS Free. To any reader of this paper who will agree to show our goods and try to influence sales among friends we will send postpaid two full size Ladies' Gossamer Rubber Waterproof Garments as samples, provided you cut this out and return with 25cts., to pay cost, postage, etc. EMPIRE MFG. CO., Williamsburg, N.Y.

Save Your Fruit Trees.

Something New and Useful. A Mechanical invention to protect your Fruit Trees from Rabbits, Ground Mice, Freezing, Sunburn, Blight, Drought and Curculio. At a cost of only half a cent a tree, lasting from four to five years. Send 50c for Farm Right Model and instructions. Will take stamps where Postal Note cannot be obtained. Or send stamp for circulars. MERCER & CO., Worthington, Greene Co., Ind.

The Laclede Hotel,
St. Louis, Mo.

s now in complete order, refurnished, redecorated and reappointed. New sewering and plumbing, with every sanitary Improvement.

300 ROOMS FOR GUESTS,
Single or en-suite, with or without Bath.
FIRST CLASS IN EVERY RESPECT.
Popular Prices.

GRISWOLD & SPERRY,
Owners and Proprietors.

New York 'Singer' Model Sewing Machine only **$15** A Corder, Ruffler, Tucker, Five Hemmers, Binder, Thread Cutter, Needles, Oil and full outfit with each.—Guaranteed to be perfect. Warranted 5 years. Don't pay double for machines no better, when you can try these before you pay a cent. All late improvements. Runs light with little noise. Handsome and durable. Circulars with hundreds of testimonials free. GEO. PAYNE & CO, 47 Third Ave., Chicago, Ill.

DEBILITY of the Generative Organs quickly cured by the CIVIALE METHOD. Adopted in all the HOSPITALS OF FRANCE. Prompt return of VIGOR. Simple cases, $3 to $6. Severe ones, $8 to $12. Pamphlet Free. Civiale Remedial Agency, 160 Fulton St., New York.

SILKS for CRAZY PATCHWORK in 50c. and $1.00 packages. Elegant Varieties. Our 20 cent package of best Embroidery Silk, assorted colors, free with every $1.00 order. YALE SILK WORKS, New Haven, Ct.

A QUARTER of a CENTURY
IN THE FRUIT BUSINESS.

E. T. HOLLISTER & CO.,
Fruit & Produce Commission Merchants
809 N. THIRD ST., ST. LOUIS, MO.
Sole Agents for the sale of the "BOSS" FERTILIZER.

Red Cedars & Froest Tree Seedlings,

Peach Pits, Black Walnuts, Forest Tree Seedlings of all leading sorts. Hardy Catalpa, transplanted. Red Cedars (sure to grow). Apple and Peach Trees and Strawberry Plants of the most popular sorts. Write for Price list. Address BAILEY & HANFORD, Jackson Co. Makanda, Ill.

The Home Circle.

FANNY FROST.

Well may you first improve your faulty style,
Then better measured verses true compile.
Your fourth is Alexandrine with a tail, (*a*)
Trochaic weeps,—'tis flatter than a quail.
The fifth homeric is too full of rhyme,
It clumsy fell, so could not come to time. (*b*)
Your seventh caudalled (*c*) too, Iambic not,
But this, perhaps, unknowing, you forgot.
Your ninth is caudalled too;—let this so pass:
Your errors would I not, so harsh amass.
Famed Homer had a nice poetic ear,
Him would your faulty verse have caused to fear.
Last caudalled thirteenth comes to fill the row,
From last, so naughty robbed a tail, you know.
The last, for want of brains, you shortened sore,
Five feet, one-half, a fault just that, no more.

REV GEO. A. WATSON.

March 14.

(*a*) One syllable over. (*b*) One foot too short. (*c*) a verb, from the adjective caudal. Tailed or furnished with a tail.

N. B. See COLMAN'S RURAL WORLD, January 2nd.

BETTER THAN GOLD.

'Better than grandeur, better than gold,'
Than rank and titles a thousand fold,
Is a healthy body and a mind at ease
And simple pleasures that always please;
A heart that can feel for another's woe,
With sympathies large enough to enfold
All men as brothers, is better than gold.

Better than gold is a conscience clear
Though toiling for bread in an humble sphere,
Doubly blessed with content and health,
Untired by the lusts and cares of wealth,
Lowly living and lofty thought,
Adorn and ennoble a poor man's cot,
For mind and morals in nature's plan
Are the genuine tests of a gentleman.

Better than gold is the sweet repose
Of the sons of toil when the labors close,
Better than gold is the poor man's sleep,
And the balm that drops on his slumbers deep
Bring sleeping draughts on the downy bed,
Where luxury pillows its aching head,
The toiler simple opiate deems
A shorter route to the land of dreams.

Better than gold is a thinking mind
That in the realm of books can find
A treasure surpassing Australian ore,
And live with the great and good of yore,
The sage's lore and the poet's lay
The glories of empires passed away;
The world's great dream will thus unfold
And yield a pleasure better than gold.

Better than gold is a peaceful home
Where all the fireside characters come,
The shrine of love, the heaven of life,
Hallowed by mother, or sister, or wife,
However humble the home may be,
Or tried with sorrow by heaven's decree,
The blessings that never were bought or sold
And center there are better than gold.

—*Father Ryan.*

From the Wildwoods.

Your kind words and warm welcome, so much more than my poor little letter merited, were nevertheless understood and appreciated by me, and have encouraged me to again enter the "charmed Circle." Your gracious invitation to share with you and your readers my rural joys and sorrows, I thank you for, and shall endeavor to comply with; and if by any words of mine, any person should be influenced to look with more appreciative eyes upon the natural beauties of our beautiful world, or to give more thought and reverence to the Creator, I shall feel that my mission was not entirely unfulfilled. Taken practically, the "lowing kine and bleating sheep" lose much of the poetical aspect given them by dreamy-eyed poets, who—as a rule—have had but little actual acquaintance with them. I stand in wholesome awe of the vicious looking horns of the kine, and the sheep—my experience with them has been far from practical—they from time immemorial, have made a practice of destroying all barriers once or twice a year, and despite all watchfulness, trim, "with neatness and dispatch," our choice shrubbery and flowers. They took the roses last year and not one bud did they leave. Yes, 'tis true, they inspire the muses. I remember I felt like writing a poem in their praises (?) at that time.

But still, there is a more poetical way of looking at the subject than I have shown. Nothing is prettier than the affection demonstrated by a flock of sheep for their master, heeding his slightest call, while the same call from a strange voice would have no effect, unless to frighten them. Sheep share with deers their timid nature, which is, however, easily overcome in both, by kind and gentle treatment. Several of my acquaintances have pet deers. One in particular, owned by a young lady friend, won my heart by its gentle, dark eyes and dainty ways. Fairy she calls it, and a fairy-like creature it is. A perfect pet, it comes when called, and allowed us to caress and its mistress to *kiss* it, to our heart's content, seeming to enjoy our demonstrations of affection and returned them by chewing ribbons and running away with handkerchiefs, collars or whatever her bright eyes and inquisitive nose found.

The icy king has again placed his hand over us, and again we are bound by winter's frosty fetters. I shan't dare complain, however, I've had experience. On Sunday last, the Rev. Mr. Smith took dinner with us, and he is most dreadfully hard to talk with for a shallow brains like me, at any rate. Of course I wanted to make myself as agreeable as possible, and as the weather is a never-failing topic of conversation, I remarked, as we gazed out upon the blowing, blinding snow storm: "This is enough to test one's patience, this snow, when we were ready to welcome spring, do you not think so, Mr. Smith?" And oh, my soul! but didn't he pour his good advice and bible quotations with lavish hand, or rather tongue, upon my unprepared and unsuspecting and most devoted head! Yes, my innocent words, uttered solely to help along the sluggish stream of our godly friend's conversation, in my pleasantest tone of voice, and with my smilingest face, gave him the text for an eloquent discourse addressed to a congregation of *one*, and that one poor, unwary me. I know that I was far from wise. I should have expanded with solemn mien, on the ways of Providence and the grain of good hidden in all our trials, etc., etc. Had I but guided my remarks in that channel, I would have taken him about right, and thereby missed a most interesting and instructive lecture. Well, experience is a dear teacher, and I intend to profit by the Rev. Smith's interesting remarks sufficiently to take great care to give the weather question a wide berth in any future conversations I may hold with that gentleman. Fearing I have overstepped the boundary of a short letter, I will make it no worse by writing more.

LAUNA.

March 8th, 1884.

Benefits and Proper Methods of Reading.

Friend Walnut has assigned to me, the poorest scholar in the circle, the most complex subject. My mother's apron-string would have been more agreeable to my taste. The benefits and proper methods of reading at first thought seems a simple subject, but on a little reflection it strikes me that it would take a college-bred man to digest it fully in all its bearings—and how shall I, who never had the advantage even of English grammar, serve up this topic to make it even palatable to the array of talent embraced by the Home Circle of the RURAL WORLD.

The little information I possess I owe to reading. It is by reading that we have an introduction to all kinds of literature and scientific knowledge, and by careful reading and study we may become fairly versed in history, both state and church, theories, discoveries, science, poetry, etc., in the ages past, and also what is being done in our own time. Life, however, is too short for a person to have a thorough understanding of all science, history and literature. We may be in sympathy or accord with the author we are reading or not. We should have opinions of our own concerning the things we read about. Error should be detected, but not endorsed. We may peruse some writers for amusement only, that scarcely make an impression on our minds, while others may be read that will make impressions that will be remembered as long as memory lasts. These impressions may be for good or evil.

For instance: Suppose a boy is permitted to read continually, without any restraints, the daring exploits of highway robbers, and the cow-boy exploits in the far West, and tales of fiction, would he not grow up early in life to be a bad man. The young, active, healthy, growing boy, as all know, has a furious appetite for this kind of food, and the impressions received from such books are not beneficial. We cannot measure the benefits of reading good books, or the evil that may arise from the reading of bad ones. Now I will follow a different train of thought.

The difference is easily noted in the face of a man who reads and the person who does not read. The man who reads much is a thinker, and he shows it in his face; but in the man's face who does not read, there is a dead vacancy, a want of exprssion, a blank, a nonenity.

A man's brain should have food for thought, and if he cannot read his world of ideas is certainly small. His only dependence for mind food is hearing others talk and general neighborhood intelligence. Hence the non-reader receives his brain food at second-hand, or perchance from third persons. Then by the time the impressions are received on his mind they do not give the feelings of pa'n, or sorrow, or joy that are experienced by one who can read for himself.

We have a class of persons also in some communities who may be able to read, but their circumstances are such that they have not the advantages of papers or books, but their active minds must have food for thought; hence they feed upon matters and things not their own, but those that belong to their neighbors. In other words they are real living, walking encyclopedias of neighborhood knowledge. They are dreaded, despised and feared by the entire community in which they live. Such persons would be greatly benefitted by constant reading, and the communities in which they live. If any gentleman reader or member of the Home Circle has a companion whose mind is very active, or predisposed to a growth into a walking encyclopedia of neighborhood knowledge, take my prescription: Supply him with all the spiciest newspapers of the day, and the benefits to him, and the community in which you live will be vastly improved.

PROPER METHODS OF READING.

In this rapidly-moving age there is a want of more method in reading, as also in many lines of business. We are in too great haste to get rich, we jump at conclusions; we plant to-day with a desire to reap to-morrow, we have no time for methodical arrangement. The young man starting out in life wants to begin where his father left off, at the top of the ladder, and not at the bottom, where his father began. The age is crowding us on too fast, but the end of this hurry will come by and by. Our country will be settled up, and not till then will we settle down to solid business. Then there will be no more running to and fro, and great fortunes made and lost in a day. To those who read only to kill time it does not matter about the method of reading, it is only a time-killing matter with them. Then there are those who have too much to read, they do not do justice to any branch of reading. Students there are, who have too many studies for their minds to grasp and digest properly, yet they are hurried through college, graduated and thrown off on the world with barely learning enough to get into the various professions, but not enough to be successful practitioners.

We should bear in mind that rapid, hasty reading, without method or study, is merely robbing time. To the young man or young woman who reads hastily, so that they can boast that they have read so many volumes of Dickens, Scott and Collins; the lives of all the great heroes, the histories of all nations, the poets Byron, Milton, Shakespere, Burns, Moore, Cooper, Pope, Crabbe and a host of the old writers that I have no space to name, with Mark Twain, Tom Sawyer, Will Carlton and other late novelties of our times, may expect great benefits from the multiplicity of authors—but too soon they may find themselves to be as sounding brass or tinkling cymbals.

Several years ago I was in charge of a Sunday-school in which I organized a class of home Bible-readers, each member of the class to report to the Secretary of the school the number of chapters read during the week. Of fifty or more scholars eighteen joined the class, mostly adults. The members of the class, with one exception, reported from seven to one hundred chapters. The exception was a young lady who reported something about two hundred chapters beginning with Genesis. On the third Sabbath from organizing the class she reported above five hundred, having read the entire Bible through in three weeks. The Sunday morning that she reported finishing it she informed me that she read until 3 o'clock that morning.

Does any member of the circle suppose that there was any proper methods of reading, or any great benefits in hurrying over the sacred pages, more than to have to say that she had once read the Bible through? I then thought fifty chapters, with other duties, were too many, and I now think about twenty-two each week would have been enough, which would have taken her 365 days, three chapters each day of the week and four on Sunday.

Now, friend Walnut, I have given you my own plain, home-spun ideas. I have had no work from which to seek special information on the Benefits and Proper Methods of Reading. This topic could be spread out into an immense field of thought. The duty of parents to furnish their children live, active, moral literature; the duty of parents to banish all murderous dime novel story paper literature, destroying it as they would any poisonous serpents, if they have ever permitted it in their families.

Now, you learned men of the circle, who claim to be mighty in English grammar and the Grecian age literature, consider this paper, ponder over these plain sentences, sharpen up your darts, advertise a shooting match, and if you lack ammunition, borrow it.

JOSIAH.

LAWRENCE, KAS., BOX 939.

The World is Full of Earnest Men.

The world is full of earnest men,
Who live to love and labor—
To do the little good they can,
And help a fainting neighbor.

There is a light their souls within,
Though dark the sky above them;
Each sits enthroned through life a king,
Amid the hearts that love them!

With faith that strengthens as they go,
With hearts to friendship given—
They rob life's journey of its woe,
And make of earth a heaven!

I was thinking, when writing this poetry, what would we do if we had not those "dear, good, earnest men." I mean Fred, Bon, Walnut, Allbee, and ever so many more. Rev. George, I am afraid of him, so I dared not put his name in my list of "earnest men." Those that I did not name need not think I cared to leave them out in the cold; I would bring them all in, but cannot.

"Poor Fred," has Fanny thrown you out in the cold? If so, she ought to be ashamed of herself for treating such a tender-hearted fellow so badly. I can't tell you anything to do, only to cheer up; Spring is near, and join in and be merry, and let all thoughts of Fanny die with the winter.

Lloyd, Bon is a good fellow, and you must not say such things about him; what does he care for being ahead of you in writing poetry? I don't believe anyone is listening, but Lloyd I expect the "poor fellow" is troubling himself, for fear that his head will be, or excuse me, I mean his hair, will be gray before we will have the pleasure of eating some of his wedding cake. Now don't blame the "poor man." It's all Idyll's fault, for saying what she did about the baby. I am sorry to see that the Home Circle has to be crowded out when any extra's come round.

The year flies fast, and time rolls on, and stops not for us to pick up the precious minutes; but when we grope about for them they are gone all too soon. If I'm not thrown into the fire, you will see me in the Home Circle, trying to take some poor fellow's part, if the roads are not too muddy.

MARY GLENDOLEN.

Fulton, Mo., Feb. 10, 1884.

A Criticism.

Show yourself, Walnut, give us your true name. It has ever been the characteristic trait of a coward, to aim his envenomed shafts at the object of his aversion or displeasure, either from a place of safe concealment or from behind a pseudonym. I have never sought to sail under false colors, but your gross ignorance of social, clerical etiquette, has betrayed you into the commission of an egregious blunder in my regard. The proper clerical prefix, in the case of a secular priest, is Rev.; but Father rarely or never. In conversation, Father is often used, especially when an aged secular priest is addressed. Father is the distinguishing prefix in the case of Catholic priests of the religious orders. In conversation, or a written address, etiquette, in addressing them, imperatively demands the use of the word, "Father."

Walnut, I must candidly confess, that I do not need either your encouragement or your approbation. I am in my own country and among my own people. Besides, Walnut, allow me to remark, that in this age of freedom of thought and action, we universally adopt and reduce to practice, the axiom of Horace, "Addictus nullius jurare in verba magistri; freely rendered into English, "We love our freedom; we are chary of dictation." I am very confident that many members of the Home Circle are far from endorsing your condemnatory views in regard to my poetry. You tell us that words are the signs of our ideas. Indeed! what a wonderful discovery. I was aware of this truth. I am sure, long before your eyes ever blinked in the rays of the morning sun. In addition to words, there are various other ways in which we may make known our ideas, or our lack of ideas. When a would-be critic indiscriminately praises or blames a writer, it is a proof that he is either wofully deficient in critical knowledge, or that he has little or no ability to give expression to his addled, common-place ideas. This was not the style in which Blair or Addison criticised authors. Finally, what is asserted without proof, is triumphantly refuted in the same easy manner. At some future date, I may have something to say to you in regard to *my poetry*.

REV. GEO. A. WATSON.

See RURAL WORLD, March 27.

Sundries.

More than 18,000 homesteads have been entered in Florida during the last two years.

Washington Territory women now have to pay a poll tax.

American Art.—Photographs, Engraving' etc., can be exquisitely colored with Liquid Art Colors made from Diamonds Dyes. Full directions for this beautiful art work, with a handsome colored cabinet photo sent to any adress for 10 cents. Wells & Richardson Co.' Burlington, Vt.

John Degnan, of Brooklyn, died on a recent Sunday while listening to a sermon in St. John's church.

A Nice Operation.—Jno. Stollar, of Seeley' York Co., Neb., a few weeks ago brought his daughter to the Kansas City Surgical Institute for treatment. The bones of her foot and ankle joint had become so diseased that the Surgeons found it necessary to amputate the foot above the ankle. Drs. Dickerson & Stark were the Surgeons who performed the operation.

A variety actress, who was arrested recently at Nashville, Tenn., proves to be a nun who had escaped from an Ontario convent.

The Modern Tantalus is altogether the opposite of his great namesake. The latter as a punishment from the gods for an infraction of their commands, was condemned to perpetual thirst, and immmovably fixed in water to his chin. What must have been his feelings to see that fluid, which more than all the world besides, he wanted, within his reach, and he powerless to drink it! What a refinement of cruelty must be such a punishment. How different our feelings to his antitype, who though suffering from sickness all the time, having means to meet the cost of alleviating his ailment, yet deliberately neglects using the remedies to his recovery. The majority of sickness arises from the torpidity of the liver, and can be dissipated and prevented by the use of that valuable elixir tonic the Home Stomach Bitters.

The Albert Lea, Minn., Standard reports that a Danish woman in the town of London recently became the mother, at a single birth, of five healthy children.

The Portland Oregonian claims to have discovered a land-grabbing fraud involving 4,000,000 acres, in connection with the sale of swamp lands in Oregon.

The Dairy.

Officers Mississippi Valley Dairy and Creamery Association.

President—Norman J. Colman, St. Louis.
Vice President—Jos. W. Drury, Waterloo, Ill.
Second Vice President—Joseph E. Miller, Bellville, Ills.
Treasurer—Wm. N. Tivy, 424 North Second, St. Louis.
Secretary—Joseph W. Sheppard, 600 Olive street, St. Louis.

We continue this week the speeches delivered and essays read at the late meeting of the Mississippi Valley Dairy and Creamery Association, at St. Louis.

Collecting Cream vs. Whole Milk.

I. H. WANZER, OF CHICAGO.

The system of cream gathering, or what is termed the Fairlamb system, is comparatively new, and all of its benefits have not yet been brought out, and we feel at a disadvantage when comparing it with other forms of association dairying better established. As yet, this form of dairying has shown to better advantage in the newer and more sparsely settled portions of the West, where stock-raising has been one of the points considered by the farmer. So well has it worked in the new dairy districts that the older ones are looking it up, inasmuch as it offers better opportunities for diversified farming. This plan is showing us how to get more good butter with less skimmed cheese.

There has been enough already developed in this new departure to convince the most skeptical that better and more butter can be made than in the old way. When compared with the old system the results are simply grand; taking, as it does, the cream from the farmer's door, releasing him from the labor of making the butter, as well as the expense of bringing about him those expensive conveniences requisite for the manufacture of even a fair quality of butter, always paying him as much for the cream that it takes to make a pound of butter as his butter would fetch after he had made it at home, and paying cash instead of store pay. The manufacturer, with his improved appliances for gathering, churning and working, converts the cream into an article demanded by the best home, as well as foreign trade, virtually bringing the most obscure farmer of the distant West with his two or three cows right into competition with his more favored neighbors that may chance to live near the great dairy centres of Elgin, or Herkimer, and instead of having to rely upon a home trade on account of the low grade of his butter, can have the whole world for his customers. Now at this age of dairying it would be folly to institute a comparison between the new and the old way, unless we can show money and advantages upon one side or the other, for there is no argument among men so good as the almighty dollar, and our 25 years' experience in dealing with dairymen leads us to believe that they are no exceptions to the rule. In my comparison of the two systems will try and show where the dollar comes in. First, we say to the farmer that has no taste for diversified farming and wants an excuse to go to town or factory every morning, that some of the items entering into our calculations will count for naught, but to the man who would make the most of his time and milk there are advantages in the Fairlamb system that are worthy your consideration. The creamery sends its wagon to your door after your cream, paying at least as much for it as you could get for the butter, were you to make and market it yourself, and with the new appliances for gathering cream, enable you to get one-eighth more cream than in the old and ordinary way of setting your milk. For instance, the dairyman that is making eight pounds of butter per day would have an increase of 365 pounds in the year, at 20 cents per pound would amount to $75, besides being relieved of the labor of making the butter or even skimming the milk. Now in comparing this with the old and better established method of association dairying, we may have a more difficult task to show the dollar upon the side of the Fairlamb system, and as this convention wants facts and nothing else, we will make the comparison, drawing from our own experience in both branches of co-operative dairying, and from the experience of others. Now, the milk producer that is selling his milk or sending it to a factory for the six winter months, has sold it for, or expects about $1 30 per hundred pounds. This is about what he will get if we base the price upon the values that have ruled for creamery butter and skimmed milk cheese after deducting manufacturing and marketing expenses.

Now let us see what this farmer would have done had he sold the cream instead of the milk. First, he would have gotten four and one-half gauges of cream, equal to 4 1-2 pounds of butter per 100 pounds of milk, which would have brought him 25 cents per gauge, $1.12 1-2, add to this the value of the skimmed milk, 25 cents, and we have $1.37 1-2, now add the saving of 10c per 100 pounds for carrying to the creamery, and we have $1.47 1-2 against $1.30, a difference of 17 1-2 cents per hundred pounds in favor of the Fairlamb plan. Now I think there will be no difference of opinion in the items above, except it may be in the matters of carrying milk to a creamery and the value of the skimmed milk. In the item of transporting milk to a creamery the average distance, the farmers of Kane and McHenry counties, Ill., think it can't be done for less than 10 cents per 100 pounds. In the matter of placing a value upon skim milk, I draw my conclusions from my own experience as well as that of others. Many dairymen of Central and Northern Illinois, Southern Wisconsin and Iowa place the value of 100 pounds of skimmed milk at 25 cents; more will tell you that they had as leave have 100 lbs. of skimmed milk as a bushel of corn to feed; not to feed alone, but, as one of the Illinois farmers put it, he said: "If I had 20 hogs to fatten and 100 bushels of corn to feed them, I should make money by exchanging 20 bushels of the corn for 2,000 lbs. of skimmed milk, and feed them the 80 bushels of corn with the 2,000 lbs. of skimmed milk. I am sure I would make more pork and in less time than I could to have fed the 100 bushels of corn alone." Another said "I am milking 15 cows and raising 12 of my best calves. I take about two-thirds of my skimmed milk and add a little oatmeal and grain, and raise calves that make as good yearlings as my neighbors, who let their calves suck the cow, the other one-third of my milk I feed to six brood sows, with an average of six pigs each, and by thus using my skimmed milk, I think it worth 30c. per 100 lbs."

My own experience leads me to place the value of 25c per 100 pounds upon skimmed milk.

It will be conceded by all that in order to give calves and pigs a fair start in life they must have milk. These calculations would place the dollar upon the Fairlamb side.

These conclusions anticipate good management in all of the gathered cream plan, and so does it need careful management in the butter and cheese factory to bring $1.30 per 100 lbs. for milk in the six winter months. Notwithstanding the fact that the Fairlamb system is new, there are already 1,300 in operation in the West alone, and if the commercial reports are consulted it will be found that no other business in our country has made so wonderful a development with so few failures. Some of us can go back to the early success and failures in inaugurating and perfecting the systems whereby an article of butter and cheese could be made in the West that might be accepted in the markets of the world; and thank God some of us have lived to see the blush mount the cheek of those that so confidently predicted our failure. Then we looked to the East for guidance. Now they come to us for advice. So we would say to those that look with distrust upon this new departure, hold, before you pass judgment, for before you are aware of it, your neighbor will have passed you on the road to success, as many of us who helped to bear the burden of opening up the West to successful dairying, have seen others left far in the background, because to lend encouragement to us in that early day was in some way to conflict with the prejudices brought from the East. It is a matter of fact that wherever the Fairlamb system has come in competition with other forms of dairying and has failed, the causes have been traced directly to mismanagement. Of the 1,300 creameries in the West, 90 per cent. of them are pronounced successes. Good butter can and must be made upon the gathered cream plan.

We need a greater diversity in farming. The milking alone as practiced in our large dairy districts seems to narrow down the chances of profits. Whilst the raising of stock and other farming pursuits that can be practiced with cream gathering would not only increase the chances of gain, but put the farmers' boys in a way to become acquainted with more than agricultural pursuit, with a tendency to enlarge instead of narrowing down the mind.

Besides the Fairlamb system would give each dairyman the opportunity of raising their own cows instead of filling up the waste by going out among those that follow this form of dairying and taking up with the culls of the herds: the tendency of other forms of associated dairying being to lower instead of elevating the standard of milking herds. There is no longer a shadow of doubt but that the finest goods are being turned out of gathered cream creameries.

To be sure the rapid development of this form of butter-making has necessitated the employment in many cases of unskilled operators, caused by the fact that creameries have been built faster than we could educate men to work them, and which should not be charged up to the system. We honestly believe that the gathered cream plan is yet to revolutionize the manufacture of butter in the United States, if not the whole world. Joseph Sampson says that the gathered cream plan is to the West what Robert Fulton's invention was to navigation in the East. We predict that within ten years four pounds out of every five of butter made will be manufactured upon this plan. We confidently expect this system to go on in its triumphant march, and some of us, now advanced in life, will live to find it as strange to find a milk pan or churn in the farmer's home as it is now a spinning wheel or loom.

A Dairy Farm Wanted.

COL. COLMAN: I wish some information, and being only a farmer and raised at the plow, and seeing you are interested in my line of business, I take the privilege of writing you for information. As soon as the spring work has opened, I wish to make a trip through part of your State with the intention of locating. As I wish to know how land could be bought or rented near enough one of those creameries to handle milk or cream, as I would like to keep 40 or 50 cows, and also farm, or if not, could you refer me to some one for information, where good farming land could be had at reasonable prices?

By so doing you will much oblige—by letter or in your valuable paper.

J. C. HAYES.

Dorsey, Ills.

The Dairy Boom in Missouri.

EDITOR RURAL WORLD: It gives me much satisfaction to see the boom the dairy interest is taking in Missouri, and that the RURAL WORLD is its great organ to speak to the farmers of Missouri, and show them the better way of living on the farm, than to plow and draw all the products to the railroad. But while this is being done, let me caution the inexperienced to go slow, for there are many drawbacks to the business in Missouri—more than in the older dairy regions. A few I will mention:

First, Want of proper shelter for cows; and second, good dairy cows. I have been in the business five years, and my greatest trouble is to buy good cows. There are as many cows here as in any other State, but they have been so badly educated they are unfit for the dairy. The only way to get milk from them, is to let the calf have one side, and a woman or girl the other—milking with one hand in a cup, and pouring the milk in a bucket; the man sitting on the fence to see that the cow properly behaves herself; if not, to take a good hickory stick and exercise her around the yard till she is tired enough to stand still. Now, when you buy that cow, and give her a good, clean stable, and civilized treatment, putting the calf away, she holds in her milk, and is dry in a few weeks.

I have been obliged to buy heifers and educate them, but so many prove poor milkers, it is rather a long process to get 25 or 30 first-class cows.

With all these drawbacks, there is no better place for dairying than in Missouri. Soil, climate, grasses and transportation, are all favorable. S. C. H.

Ladonia, Audrain county, Mo.

Chicago Butter.

NEW YORK, Feb. 29.—The committee of the New York state senate to investigate the public health of the city as affected by the manufacture and sale of adulterated articles of food met today. The first witness was C. H. Robinson, butterine manufacturer of Chicago. He stated the product was made principally from lard oil, which was rendered at a temperature of about 140 degrees Fahrenheit. All impurities are well eliminated. About half the product manufactured by the firm in Chicago was shipped to New York. There was another product manufactured by the firm called "suine," which contained a larger proportion of lard than butterine. It cost 20 3-4 cents per pound to manufacture the product, and it was sold at wholesale in the city at 25 and 26 cents. Witness said he always used the product in his own family, and they preferred it to the best creamery butter that could be produced in Chicago.

Sweet and Sour Cream Butter.

Frequently we pick up a paper which advocates the making of sweet cream butter; that of churning the cream before the lactic acid has made its appearance. They argue that a finer flavored butter can be made in this way than under the old system of letting the cream ripen. But such is not the case, and it is generally admitted that the butter made at Elgin is the best made in the country, when the quality made is considered, and recently we asked a noted butter maker for his views on the questions, when he said: "A test was recently begun in a factory where both butter and cheese are made, to determine the economy of the plan of churning the cream sweet and then mixing the buttermilk with the skim milk to make cheese. Preliminary to a more general test, the cream taken from the night's milk on alternate mornings was treated by the two methods and the butter produced was submitted to experts, who knew nothing of the history or character of the butter, except what they could see. In every case that produced by the sour cream was pronounced superior in every important particular, and especially in those of flavor and color, no artificial coloring being used. So fully were the parties satisfied by this test, which was several times repeated, that no advantage to be derived from the sweet cream method would compensate for the difference in quality that the other and more elaborate tests contemplated have been abandoned."

Early-Breeding Jersey Cows.

—A correspondent of the *Country Gentleman* remarks:

"Heifers that breed young generally make the best cows at maturity. If a heifer has a small bag when she calves, it will increase with age, and when she is at middle age she is altogether better than one that is kept back until she is a cow before she breeds. One three years old before she breeds may do well the first season, but never does well again. The young heifer will begin small and do best at maturity. These conclusions are arrived at after more than fifty years' practical experience. I have known a heifer to drop a healthy calf three days before she was twelve months old, and she had no unusual trouble, and was as well and healthy as any cow. I am the owner of a cow that dropped her first calf at seventeen months old, and was always small of her age. She has always done well, and never needed the aid of a veterinary surgeon."

Corn for Fodder.

We think the very best way for a farmer, who wants to keep his land free from weeds, is to plant in rows wide enough to cultivate and in hills far enough apart for the hoe to go between them, with eight or ten stalks to a hill. It grows well this way and is more easily kept clean than when in drills. On a large scale where things must be done more loosely, it is sown in drills. Sweet corn is largely used among the best dairymen and may be sown as thick as one kernel to the inch and then will produce ears which are very rich food for cows or pigs. To cure for winter use it should be cut early, both to get the hot weather to dry it and to save the juice in the stalk before the ears fill as the mice will get the corn if it is packed in the barn. A large amount of excellent fodder can be secured in this way. Sowing broadcast is unsatisfactory. The corn is not so sweet and is hard to harvest.—*Ex.*

Creamery Notes.

And still the good work goes on. Creameries are booming up all over the State.

The good people of Lamar subscribed $6,500 for one of the very best last week.

—The Chillicothe creamery is now paying $850 per month.

—An attempt is being made to establish a creamery in Springfield.

—There is an earnest movement to establish a creamery at Palmyra.

—Lebanon, Laclede county, like the rest, is raising money to establish a creamery.

—They have established a creamery at Harrisonville, and the best results are expected.

—Milo Moore, who is furnishing milk for the Clinton creamery, has realized this month, as cold as it has been, a fraction over $4 from each of his cows.

—Louisiana is to have a creamery, called the Pike County Creamery Company. The building will be erected by April. The capacity will be 2,500 pounds of butter per day.

—Independence has the best creamery in the State. It does an immense business, is not only a source of wealth to its proprietors, but to all those who furnish it cream.

Dairy Notes.

—The *American Dairyman* says: A hayseed in a cow's eye will turn it white. It will come all right in a day or two if left alone. If doctored we don't know when it will get well.

—It has been shown that "a pail of milk standing ten minutes where it is exposed to the scent of a strong-smelling stable, or any other offensive odor, will receive a taint that will never leave it."

—It is claimed that while cows giving exceptionally large quantities of milk will sometimes make large butter tests, as a rule the two things do not go together, being inconsistent with each other.

—There is a general opinion among old farmers that cows having only three teats are apt to be superior milkers. This is often the fact, and one reason doubtless is, that cows which give large quantities of rich milk are most liable to those injuries from inflammation which so often destroy one of the teats.

—Scalding the milk before feeding will usually remedy scours in calves if taken in time. Checking the discharge too suddenly is a common mistake, as the drugs usually given for this purpose permanently injure the digestion, which is all important for the animal either for beef or milk.

—A member of the Vermont State Board of Agriculture is authority for the statement that there are now over fifteen dairymen in the State who are making an average of 300 pounds of butter per cow, annually, from their entire herds, while the average for the country is probably not more than from 125 to 150 pounds.

—Mr. Victor M. Drake tells the same paper how he represses devotion to perpetual motion on the part of self-sucking cows:

"Tie short, and apply aloes to the teats immediately after milking. The pungent bitter taste of the drug, after one or two applications will generally effect a cure. Keep up the treatment for several days for fear the appetite for milk will return."

—A Vermont dairyman says a young calf should be fed three times a day. Overfeeding at long intervals, and especially with cold food, kill a good many valuable calves.

A Pennsylvania farmer writes: "On my farm of 120 acres we kept, during 1883, about 35 cows; the number varied somewhat, a few more in winter than summer. From these 35 cows we made 8,133 1-2 pounds of butter, which was sold for $3,930 18, or $112 for each cow. Three or four of them were heifers with their first calf, and some others aborted. The calves sold for $143 75."

CHRONIC DIARRHŒA IN STOCK.—Careful attention to feed and exercise is worth more than medicine in the treatment of this disease. In horses it sometimes is the result of a too greedy appetite. In such a case let the food be of such a nature as will prevent rapid eating. Give in all cases food of easy digestion, and exercise the animal gently. Tonic stimulants such as tincture of peppermint, ginger or cloves are useful if given steadily in moderate doses.

—It is a serious mistake to neglect handling young heifers until after they have dropped their first calf. At this time their bags are apt to be swollen and tender and the task of accustoming them to be milked is more difficult. The operation tends to enlarge the bag and the teats, and with good milking stock may make it necessary to draw milk once or twice a day for a week or more before the calf is dropped. Do not begrudge the extra trouble that this makes. It is a sign that the heifer will prove to be a deep milker.—*Cultivator.*

—The first thing to be aimed at in getting together a herd for the dairy is to secure good milkers—cows that can make a good record in both quantity and quality. For this purpose each animal should be tested separately, and disposed of if it does not reach a satisfactory standard; once done thoroughly, it will do for the lifetime of the herd. To neglect this work is to imperil the enterprise, for several cows of a low standard are a constant drain on profits. It costs as much to keep a poor cow as a good one.

—Many notice at this time of the year, says a dairyman, an unaccountably bitter taste in their cream. You feel that you have done your duty in keeping your cream vessels scalded, and have had a nice sweet place to keep it in. This bitter taste is produced by keeping your cream too long at a low temperature. It is claimed that the acid that produces this taste will not form when the cream is kept above 45 degrees, hence we often find our patron's cream bitter, who think they are taking the best of care by keeping it "cold and sweet." The remedy then would be, as to temperature, to keep your cream a very little above 45 degrees at all times if you wish to furnish the best cream.

—A Massachusetts dairyman, in a recent lecture, expressed the opinion that the milk-room should be above ground and be filled with pure and constantly changing air. The milk should be in shallow pans, from 1 1-2 to 2 1-2 inches deep, while the temperature should be 60 degrees all the year round. The gilt-edged butter, he says, can be made in no way but by shallow, open setting, at 60 degrees. In no other way can the volatile, aromatic flavoring oils be liberated and the firm, waxy grain be preserved. The milk should be skimmed at from 24 to 36 hours, should ripen from 12 to 24 hours at 60 degrees, and should be churned at from 55 to 65 degrees. Use one-fourth of a pound of salt to one pound of butter.

The recent record of "Mercedes," in competition for the Breeders' *Gazette* challenge cup, in which she vanquished her Jersey competitors and raised the record higher than ever before reached, is still fresh in the minds of our readers. Her yield for thirty consecutive days was 99 lbs. 6 1-2 ounces of unsalted butter. "Mercedes 3rd" is a granddaughter, through her sire, of the well known cow, "Aegis," so long one of the prominent members of the Lakeside herd, and whose milk record is only fourth in the list of milk records, the greatest yield, 18,120 lbs. 8 oz. in a year, having been made by her sister. The two next largest were made by "Aggie" and "Aggie 2nd," (the latter but 2 years old) giving respectively 18,004 lbs. 15 oz. and 17,546 lbs. 2 oz. in a year. Next is "Aegis," with 16,823 lbs. 10 oz, in a year.

The Stock Yards.

Weekly Review of the Live Stock Market.

The receipts and shipments for the week ending Tuesday, April 1st, were as follows:

RECEIPTS.

	Cattle.	Hogs.	Sheep.	Horses and mules.
Wednesday....	2105	3892	705	124
Thursday.....	2648	4863	1855	68
Friday.....	659	2175	1284	225
Saturday.....	141	600	2554	22
Monday.....	1761	4323	3933	306
Tuesday.....	1732	4535	306	134
Total.....	9,046	20,388	10,637	879
Last week.....	8,111	21,037	7,760	954

SHIPMENTS.

	Cattle.	Hogs.	Sheep.	Horses and mules.
Wednesday....	865	1173	1579	42
Thursday.....	496	1723	1830	60
Friday.....	1492	1822	548	321
Saturday.....	1541	2078	426	271
Monday.....	3302	1586	2440	183
Tuesday.....	79	599	——	93
Total.....	7,775	8,981	6,823	970
Last week.....	7,147	9,974	3,123	930

Milk cows have been shipped to Texas in considerable numbers during the winter.

The *Texas Wool Grower* says the sheep of Texas increase in numbers at this time of the year at the rate of 3,000,000 a month for one month. When this lambing is well over, the sheep in the State cannot number less than 10,000,000.

A board of United States Army officers have been in the city purchasing cavalry and artillery horses, 500 head being required. The first to be geldings 15 to 16 hands, and not less than 5 nor more than 9 years old, hard e lors, sound in all particulars, and broken to saddle. Heretofore it has been the custom to buy horses for the army by contract, which had many disadvantages to buyer and sellers, but this year the board will buy of any one who has horses to sell, and will make no contracts.

The Devon cattle breeders of the United States met at Pittsburg the 26th inst., and organized a national association.

At Montreal, Canada, the Abattoir Company has brought a suit for $100,000 against the city for not enforcing the law compelling butchers to slaughter in their establishment.

Imported Jersey cattle sold last week in New York at prices ranging from $2 25 to $4 40.

A car company in this city has orders for 200 refrigerator cars, to be used in the Texas meat trade.

At a meeting of the stock association, recently held at Vinita, Indian Territory, it was decided that the general round up should begin May 1st. A committee, appointed to confer with the St. Louis and San Francisco railroad in regard to stock killed by said road, agrees with the agent on the following basis: For calves killed, $10; yearlings, $17; 3-year-old heifers and upwards, $30; 3-year-old steers, $32 50; 4-year-old and upwards, $37 50.

Northern Nebraska, a territory usually tributary to Chicago, has of late been sending cattle to St. Louis, and shippers have expressed themselves highly pleased with our market.

Augustus Schell, the late deceased New York millionaire and politician, and Mr. B. Burlburt, of Cleveland, were both stockholders of the National Yards.

Chicago has evidently taken the alarm at the rapid increase of our live stock trade and is afraid that St. Louis is robbing her of her prestige as a stock market. The *Drovers' Journal* and the *Tribune* are both howling at what they term unjust freight discrimination; the former says:

"It is charged that the railroads are now discriminating seriously against Chicago in the matter of western freight rates; that certain roads are able to ship cattle as cheap from St. Louis as from Chicago to New York. Why do buyers like Eastman, Waixel, Monroe, Doud, put extra men at St. Louis at extra expense, when they could buy all the cattle they wanted right here at home? Why do it, unless rates are cheaper there? Lower freight rates are given from St. Louis than from Chicago. It is charged that this course is being pursued for the sake of bolstering up the declining of stock of the yards there. Sam Allerton, John B. Dutcher and others are interested in the St. Louis yards, and are casting their influence that way. There's evidently an African in the woodpile somewhere."

The facts of the case are that the windy city by the lake has been losing while St Louis has gained immensely in receipts, but more especially in the good opinion of shippers and feeders, who are the ones to build up a market, and they, and not the railroads, are the ones that are discriminating. Without going into detail, it is sufficient to say, that during last month our market has gained 83 per cent. in hogs, and over 21 per cent. in cattle. Chicago, during the same time, lost 16,831 cattle, as compared with the same time last year, and 91,478 hogs. This is why the buyers mentioned above, patronize this market.

The cattle quarantine in Kansas has been entirely removed.

Three years ago there were not 30,000 head of sheep in the region of the Yellowstone; now there are over 500,000.

The packing statistics show that in winter packing, the country is 730,000 hogs short of last year, of less average weight and less average yield of lard.

New York papers inform us that over 100 butchers in that city have formed an association to protect them from what they designate "The ruinous competition of Western dressed beef," which, it is claimed, is arriving there at the rate of 2,000 carcasses a week.

CATTLE—The general market was not in a very satisfactory condition during the week now under review. The comparative lassitude observed at the close of last week continues well into this and to quite an appreciative extent. The Eastern demand failed to show any improvement although the movement still continues, and each day the pens were pretty well cleared, but the rates of the preceding week were entirely lost, and throughout the week values remained in buyers favor, which, however, did not appear to stimulate the demand to any [illegible] There was a somewhat stronger [illegible]he market for a few days subsequent [illegible]se, but previous to that time, the [illegible]f business was light, and while there [illegible]ng pressure to sell, it was impossi[illegible]te an active movement. However, [illegible]assed, the foot and mouth scare [illegible]ated, it is but fair to anticipate [illegible]g of a revival in the trade the com[illegible]k.

[illegible]e movement at the close was slow, and [illegible]e tendency bearish. Supply large, and buyers working strongly for lower prices, which salesmen were just as firm in not granting. As a result the trade was small, prices unsettled and irregular, and it was found at times that concessions would have to be made in order to sell. We quote:

Exporters	$6 25	@	6 50
Good to heavy steers	6 06	@	6 25
Light to fair steers (grasses)	5 25	@	5 65
Common to medium nat. steers	4 90	@	5 25
Fair to good Colorado steers	4 85	@	6 00
Southwest steers	4 25	@	5 65
Light to good stockers	3 50	@	4 50
Fair to good feeders	4 50	@	5 15
Native cows and heifers	3 75	@	4 60
Oxen and calves of any kind	2 75	@	3 50
Cornied Texas steers	4 75	@	5 80
Milch cows with calves	23 00	@	50 00
Veal calves	6 00	@	13 00

HOGS—There has been a continual light movement in the hog market, and at no time was any urgency remarked in the demand from any class of buyers. Fortunately the arrivals have proved light, and salesmen were not only enabled to maintain prices, but to advance them a little, notwithstanding outside influences favored lower prices. On the opening day the market was quiet, but the small supply was readily closed out at an early hour, at figures varying as follows: Common to good mixed packing $6 40@6 90, Yorkers $6 35@6 50, light hogs $6@6 30, pigs $4 50@5 75, and butchers to selected $6 85@7 45. Thursday buyers were slow and reports from other markets unfavorable, and it was found that in order to effect sales, prices would have to come off, the movement being at a decline of 10c. Common to good mixed packers selling at $6 30@6 80, Yorkers $6 25@6 45, lights $6@6 20, pigs $4 50@5 70, and butchers to extra $6 75@7 00. On Friday the supply was unequal to the demand and values advanced to about the old figures. Sales were made rapidly, and the pens soon cleaned at $6 35@6 50 for Yorkers, $6 40@6 90 for packing, $6 80@7 15 for butchers to extra, and $4 75@5 75 for pig. Saturday there was not enough offered to make a market, and prices were nominal at previous prices. On Monday trade opened active with a good demand, the supply was improved both in numbers. Sales to packers $6 50@6 80, and to butchers $6 45 for Yorker weights, and $6 75@7 15 for fair to extra, pigs $4 50@5 75, and Yorkers quoted at $6 30@6 45.

The market closed weak at a decline. The demand was, however, good, and at the reduction buyers were enabled to clean up most of the offerings on the following basis: Common mixed to good packing, $6 30@6 70, butchers to selected, $6 80@7 00, Yorkers $6 25@6 40, pigs $4 50@5 75.

HORSES.

Heavy draft	$150@225
Drivers	125@200
Streeters	110@140
Southern, fair to extra	75@100
Saddlers	110@170
Plugs	50@ 75
Cavalry	115@135

MULES.

13 to 13¼ hands, 4 to 8 years old	60@ 90
14 to 14½ hands, 4 to 8 years old	90@100
15 to 15½ hands, 4 to 8 years old	110@130
15½ hands, 4 to 8 years old	130@150
15½ to 16 hands, 4 to 8 years old, extra	150@180
Old plugs	40@110

SHEEP—Owing to depressed Eastern markets and a lack of movement, the market during the fore part of the week ruled weak at a decline. But later these influences being removed, the decline was regained, the demand picked up, and trade was active to the close, top bringing $5 75@6 50 for choice to fancy, fair to good $4 75@5 50, medium $4 25@4 50, and common $3 25@4.

Horses and Mules.

The local demand for all grades of horses continues large and the moderate supply not ample to go around. The United States government officers are buying good sound geldings for cavalry service and cannot obtain them as fast as they desire. Mules were slow of disposal. The supply has fallen off, and this helps the market in a measure. Extra heavy mules are the best selling.

GENERAL MARKET.

FLOUR—The demand has been quiet, but the general market was without material change. The best grades were a little easier to sell, but all other grades were in scant supply and consequently well sustained in price. We quote: Extra fancy, $5 35@5 60; fancy, $5 10@5 20; Choice, $4 60@4 75; family, $4 05@5 15; xxx $3 70@3 80; xx $3 20@3 35; x $2 90@3 05; superfine, $2 65@2 70; fine, $2 35@$2 45; Patents $5 75@6 40.

WHEAT—Received into elevators during week 107,811 bushels. Withdrawn 111,310 bushels. The future market has been a declining one during the entire week, and at times the decline and pressure to sell has been quite demoralizing. The close was weak at declines of 1c for March, April and year, 1½ for May, 2c for June, and 1¾ for July, March sold in settlement at $1 09¾ to $1 08¼, April $1 09 to $1 08, May $1 08¾ to $1 07¾, June from $1 04¾ to 1 03¼, July 94¼ to 93¾, year 91¾ to 91¼. There has been only a small milling demand for cash grades, and lower prices were paid as sellers found that they could not dispose of their stocks except by conceding declines. The close was lower at $1 08¾ to $1 08¾ for No. 2 red regular, No. 3 do 97 in E, No 4 90 asked, 86¼ bid rejected, 68 in E., to 68¼ in St. Louis.

CORN—Received into elevators during week 574,045 bushels. Withdrawn 778,099 bushels. Options have held up very well, all things considered, though the feeling has been more or less unsettled, and prices have fluctuated irregularly. The close was easier at declines of ¼@¾c. March 48¾ bid. April sold at 48¾ to 48¾, May 50¼ to 49¾, June 51¾ to 51¼, and July at 53 to 52¼. Cash grades have been in demand and well sustained in prices, selling well to speculative and local buyers. The close was firm. No. 2 mixed 48¼ to 48¾, No. 2 white mixed 53¼ to 54, rejected do 48 to 50 bid, new white mixed 53½, rejected 45½ to 45¾, new mixed 46¼ to 47½, no grade 42½ bid.

OATS—Received into elevators during week 102,358 bushels. Withdrawn 66,278 bushels. Futures closed dull and easier in sympathy with wheat and corn. May sold at 33¾ to 33⅝, April and March had 32½ bid. Not a sale of cash was made, though buyers were willing to pay higher prices, offerings were scant and held very firm. No. 2 33 bid regular and 34¾ in St. Louis, rejected 32½ bid regular and 33 for St. Louis.

HAY—Offerings continue light and prices firm. Choice to fancy very scarce, and wanted on local account, while lower grades were quiet. Sales: On E. trk—2 cars prime timothy at $12; this side—125 bales choice mixed at $12; on trks—1 car choice prairie at $10 50, 2 prime and choice mixed timothy $10@11 50, 1 common do at $9, 3 prime timothy at $12, 2 do at $12 50, 3 strictly prime at $12, 2 choice at $14.

HIGHWINES—Steady. Sales 178 bbls at $1 16.

BUTTER—Very quiet and easy; local retailers (who were about the only buyers) were generally holding off for lower prices; supplies increasing. We quote: Fresh creamery at 30@33c—fancy 34@35c, inferior less; choice fresh dairy 28@30c; good medium to prime 20c@25c; common to fair 8c@12½c; sweet ladle packed, of good color, 20c@25c; near-by country-make 7@9c to 16@18c; roll—northern 20@24c; country 16@22c; grease 6@7c.

CHEESE—Quiet. Full cream 13@15c; prime to choice part skims 10@11c; inferior at 3c for low to 6@7c for fair.

EGGS—Receipts (48 hours) 3,800 pkgs. Lower: prices easing off from 15½c early to 15c later. Lots in irregular pkgs ½@1c less. Goose eggs quotable 40@45c.

POULTRY—Live chickens in large receipt, which, with some held-over stock, caused lower prices to prevail; sales generally at 25c per doz. decline. Quote at $3@3 25 for cocks, $3 25@3 50 for mixed, $3 75@4 for hens. Other kinds scarce and steady; turkeys $14@18 ₩ doz. or 13@15c ₩ lb by weight; ducks $3 50@4; geese $3@4 plucked, $5@6 feathered. No dressed offering.

VEALS—Plentiful, with a pretty good demand. Choice, milk-fed at 8½c ₩ lb, fair to good 7@8c, heroics 5@6c.

POTATOES—Dull and weak; plentiful; choice seedling stock alone excepted—it was scarce, in fair demand, and steady. Near-by growth at 25@27½c; Northern at 35c to 40c, Eastern at 40@45c. Sales: I car bulk near-by growth at 25c del., 1 car bulk Northern fluke at 38c, 2 cars bulk Eastern burbank at 42½c.

ONIONS—Easy and dull; nearly all on sale were sprouted or sprouting rapidly, and dealers would buy only enough for pressing wants, in consequence. Prime comparatively free from sprouts, quotable at 80@85c per bu. for yellow to 85@95 for red; in bbls at $2 to $2 25. Inferior stock nominal—practically unsalable. Sale 200 bbls fancy red at $2 50 ₩ bbl.

SWEET POTATOES—Eating varieties in demand at $3 75 ₩ bbl in shipping order. Seeding selling from store at $2 50 ₩ bbl for red nansemond, $3 for other kinds.

HORSERADISH—Sells on orders at $4 50@5 50 ₩ bbl. as in quality.

TURNIPS—Old sell on orders at $1 75 ₩ bbl. Lots in sacks at 40@55c.

PARSNIPS—Home-grown at $3 ₩ bbl. on orders.

CARROTS—Dull at $1 75 ₩ bbl on orders.

BEETS—Sell at $1 75 ₩ bbl on orders.

HEMP SEED—Scarce. Native salable at $2 50; Russian at $2@2 20.

APPLES—Lower and slow. Offerings decaying rapidly, and receipts mainly of soft or speckled—not fit to be shipped out. Best of the offerings selling at $2 25 to $3 25 for geniting, and $3 to $3 50 for sound red varieties—fancy hard fruit of good keeping quality worth more, while inferior was much lower. Sales: 75 bbls. in lots at quotations.

ONION SETS—Prime tops at $1 50@1 75, and bottoms at $1 50@1 65 for yellow to $2 for white.

DRIED FRUIT—Quiet. Apples—fair at 6@6¼c, prime 6¾@6¾c; evaporated nominal at 8c to 11c. Peaches—mixed and fair halves 5@5¼c, prime halves 5¾@6c, choice do 6¼c; inferior, very dark and wormy, less.

GRASS SEED—Steady with a fair demand for the better grades; inferior stuff dull as ever and plentiful. German Millet—sound clean bright 45@50c, low to fair 25c to 35c; common millet 30c to 45c; Hungarian 40@50c; timothy from $1@1 10 to $1 27½@1 30; clover at $6@6 25; redtop at 40c to 50c. Sales:—German Millet—1 car at 45c, 2 at 47c; timothy—30 sks at $1 24; redtop—18 sks at 42½c; clover—small lots at $6 10@15.

SORGHUM—Scarce at 30@32c.

POP CORN—Prime quotable in lots at 1 1 2@2 1-2c—latter for choice white.

CABBAGE—Firm; light offering. We quote New Mexico stock from first hands at 4c ₩ lb; Northern jobbing from store at $2 75@3 50 ₩ bbl.

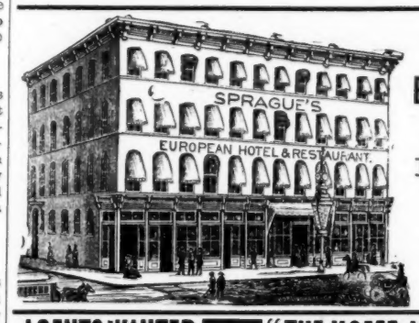
SEEDS.

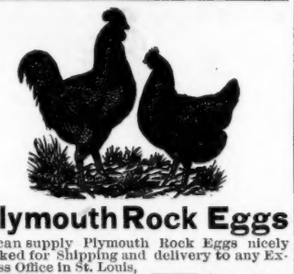
Net cash retail prices.

Red Clover	60 lbs.		$ 6 25
Sapling "	60 "		6 40
Alfalfa "	60 "		6 60
White Dutch "	60 "		13 00
Alsike "	60 "		13 00
Timothy	45 "		1 40
Red Top	14 "		55
Orchard Grass	14 "		2 25
Blue Grass, Extra Clean	14 "		2 80
English Lawn Grass	14 "		2 80
Hungarian "	48 "		55
Millet	50 "		55
German Millet	50 "		65
Meadow Fescue	24 "		3 60
Sugar Cane Seed	50 "		2 50
Broom Corn "	50 "		2 00
Osage Orange	32 "		4 00
Castor Beans	46 "		2 50
Cow Peas	60 "		1 40
Hemp Seed, Prepared	44 "		3 00
Buckwheat	52 "		1 25
Barley	48 "		75
St. Charles White Corn	56 "		75
Galena Yellow "	56 "		75
Pop "	50 "		2 50
Red Rust-proof Oats	32 "		50
Black "	32 "		45
Rye	56 "		65
Flax	56 "		2 25
Top Onions	28 "		——
Yellow Onion Sets, Measured			1 90
White " "			2 00

Complimentary Notice.

The Louisville Exposition awarded prizes on buggies and harness to the Elkhart Carriage and Harness Manufacturing Co., of Elkhart, Indiana. They deal directly with the consumer at wholesale prices, and ship anywhere with privilege to examine before paying. See their advertisement in another column.





St. Louis Amusements.

"Confusion" an amusing comedy is the attraction at Pope's this week. Magda Nochick, the German tragedienne, appears April 6th.

Mrs. Langtry in her interesting play "A Wife's Peril," is crowding the Olympic. The great drama of "Queen's Evidence" next week.

The Rice Surprise Party in "Pop," is doing well at the Grand. Mestayer and Bartons "Wanted a Partner," April 6th.

The gory drama of "Jesse James" is doing a big business at the Peoples. "Peck's Bad Boy," April 6th.

At the Standard Bayliss & Kennedy's Bright Lights are presenting an excellent entertainment. Pat Rooney and company return April 6th.